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In The

Supreme Court of the United States

MARYBETH DAVIS,

Petitioner,

v.

THE STATE OF WEST VIRGINIA,

Respondent.

On Petition For A Writ Of Certiorari To The Supreme Court Of The State Of West Virginia

PETITION FOR A WRIT OF CERTIORARI

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QUESTIONS PRESENTED

1. In a prosecution fourteen years after the alleged crime, in which a mother is accused of poisoning her daughter with caffeine and the State's theory of the homicide is based on the "guess" that the official state toxicology and pathology reports are wrong, is it a violation of the petitioner's Due Process Rights as set out in *Brady* and its progeny:

A. For the State experts to first "guess," without proof, that the official toxicology report is in error and, under the pretext of fixing the error, to secretly increase the amounts of caffeine ten times so that the amount of caffeine is increased from the harmless equivalent of less caffeine than contained in two cups of coffee to a lethal caffeine equivalent of fifty to one hundred cups of coffee; and,

B. For the State to withhold the original spectrographs which prove the original toxicology findings are, in fact, accurate and a caffeine poisoning is impossible; and

C. For the State to withhold tissue slides which show conclusively that the victim died of Reye's Syndrome.

2. Is it a violation of the Petitioner's Due Process Rights and Rights of Confrontation, for the Justices of the West Virginia Supreme Court to *sua sponte* read and interpret for themselves, scientific data in the form of spectrographs and tissue slides, so that the expert testimony interpreting the evidence is ignored and their scientific meaning is lost?

TABLE OF CONTENTS

	Page
QUESTIONS PRESENTED	i
TABLE OF AUTHORITIES	iii
OPINIONS BELOW	1
JURISDICTION	1
CONSTITUTIONAL PROVISIONS INVOLVED	1
STATEMENT OF THE CASE	1
REASONS FOR GRANTING THE PETITION	17
CONCLUSION	28
APPENDIX	App. 1

TABLE OF AUTHORITIES

Page

CASES:

Brady v. Maryland, 373 U.S. 83, 83 S. Ct. 1194, 10 L. Ed. 2d 215 (1963) ..... *passim*

Banks v. Dretke, 124 S. Ct. 1256 (2004) 17, 19

Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579, 113 S. Ct. 2786 (1993) 16, 21, 25, 27, 29

Kyles v. Whitley, 514 U.S. 419, 115 S. Ct. 1555 (1995) 19

State v. Davis, 205 W. Va. 569, 519 S.E.2d 852 (1999) 2, 4

Strickler v. Greene, 527 U.S. 263, 119 S. Ct. 1936 (1999) 19

BRITISH AUTHORITY:

Royal Courts of Justice, Strand, London, WC2A2LL, January 19, 2004, Angela Cannings, Appellant, v. Regina 27

In the Matter of B (A child) And the Matter of the Children Act 1989 between Kent County Council and (1) the mother and (2) the father 27

CONSTITUTIONAL AND STATUTORY PROVISIONS:

U.S. Const., Amend. VI 1

U.S. Const., Amend. XIV 1

MISCELLANEOUS

D. Marlow, "From Black Robes to White Lab Coats; The Ethical Implications Of A Judge's Sua Sponte, Ex Parte Acquisition of Social and Other Scientific Evidence During the Decision-Making Process." St. John's L. Rev., Spring 1998 25

PETITION FOR A WRIT OF CERTIORARI

OPINIONS BELOW

The opinion of the West Virginia Supreme Court that is appealed is reported as *State of West Virginia v. Marybeth Davis*, ___ W. Va. ___, ___ S.E.2d ___, 2004 WL 2743514 (2004).

JURISDICTION

The Court's opinion under appeal was entered December 4, 2004. A timely Petition for Reconsideration of the Appeal was filed on January 5, 2005 and was denied on February 16, 2005. Both opinions are attached as Appendices A and B.

CONSTITUTIONAL PROVISIONS INVOLVED

"In all criminal prosecutions, the accused shall enjoy the right – to be informed of the nature and cause of the accusation; to be confronted with the witnesses against him;" U.S. Constitution, Amend. VI.

"[N]or shall any State deprive any person of life, liberty, or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws." U.S. Constitution, Amend. XIV.

STATEMENT OF THE CASE

Introduction:

Petitioner respectively petitions for a Writ of Certiorari to review a decision of the West Virginia Supreme Court of Appeals which denied the Petitioner's Rule 33 Motions for a new trial based on newly discovered evidence. The petitioner, Marybeth Davis, was convicted on September 15, 1997, in the Circuit Court of Greenbrier County, West Virginia, for the 1981 attempt to injure her six week old son, Seth, by insulin and the 1982 murder, by caffeine poisoning, of her three year old daughter, Tegan.

She was sentenced to life in the penitentiary without any possibility of parole on the murder charge and received an additional five to fifteen years on the attempt to injure her son. The first appeal of her conviction, based on the insufficiency of the evidence and prosecutorial misconduct was denied in 1999. *State v. Davis*, 205 W. Va. 569, 519 S.E.2d 852 (1999).

Following the denial of the appeal of her conviction, the defendant located toxicology spectrographs and other medical documents in the West Virginia Medical Examiner's Office; volumes of notes and tissue slides in the possession of the key state witness; and was able to conduct newly developed genetic tests, not available before the trial. The Petitioner filed numerous Rule 33 Motions which were consolidated into one motion. The West Virginia Supreme Court, using an "abuse of discretion standard" of review, affirmed the lower Court's denial of the motions for a new trial. Petitioner contends that with this *Brady* evidence the petitioner can now prove to a scientific certainty her innocence.

In 1982, the facts surrounding the death of Tegan Davis and the alleged injury by insulin injection of Seth Davis were fully investigated by State officials. No prosecution occurred. The State officials disregarded the accusation that Seth was injected with insulin. No one saw anyone inject any insulin, or found any injection sites. The test to determine whether Seth had been injected with artificial insulin was considered to be too unreliable. The State officials accepted the diagnosis of the geneticists that Seth had Leigh's Syndrome, a fatal genetic disease.

The accusation that Tegan died of caffeine poisoning was made by Dr. Hooper, who, on autopsy found white beads in Tegan's digestive tract, which she theorized were the remains of caffeine pills. The official toxicology report found that the total amount of caffeine found in Tegan's body was less than had she drunk two cups of coffee or a coca cola. The official pathology report of the tissues confirmed the diagnosis of the treating physician that

Tegan died of Reyes Syndrome. Dr. Hooper was considered to be a bad pathologist for basing theory of a homicide on the belief that the official toxicology report was in error. Marybeth was regarded as a grieving mother who had suffered the catastrophic loss of two of her children. The case lay dormant for fourteen years. After separating from her husband in 1987, Marybeth raised her son, Gary, and her adopted daughter, Katie, as a single mother without incident until her indictment.

In 1995, the State resurrected the case. The State claimed that the original investigation had been lost with the passage of time, but with the aid of Dr. Hooper, the State was able to locate most of the critical documents. The prosecution claimed the case was resurrected because with the passage of time, the State had come to understand and appreciate a controversial mental disorder called Munchausen Syndrome By Proxy. Those who have this alleged disorder harm their children, in order to gain sympathy for themselves.

In 1996, following Marybeth's indictment, the defense filed motions to redo the toxicology tests and to obtain the tissue slides. Appendix H. The State responded that the tissue slides no longer existed. Appendix I. The State claimed that they were going to bring in Dr. Backer who had done the original toxicology tests in 1982 to defend his findings. The State agreed to an order barring Dr. Hooper from speculating on the chemical content of the white beads found by Dr. Hooper in Tegan's stomach. The State said it had provided the defense all of the *Brady* material that still survived. No mention was made that Dr. Hooper based her theory of a homicide on the belief that the toxicology findings were in error.

In 1997, in a much publicized trial, the State described this as a circumstantial case; that after her daughter's death, Marybeth had balloons at her daughter's funeral, read such books as *Why Bad Things Happen to Good People* and withdrew emotionally from her fellow employees; all signs allegedly consistent with Munchausen Syndrome By

Proxy. The State experts disavowed the official pathology report that said Tegan met all of the criteria of Reyes Syndrome. The State experts asserted Tegan had no brain edema. Because of the absence of the brain edema, the State experts represented that the treating physician was incorrect in his diagnosis, that Tegan suffered from Reyes Syndrome. The Prosecution represented that the amount of caffeine found in Tegan was lethal. On Seth, the State said it was "inconceivable" that Seth suffered from Human Growth Hormone Deficiency, a genetic disease similar to Leigh's Syndrome.

The defense contended that both children suffered from a common genetic defect in the liver that caused Human Growth Hormone Deficiency in Seth and Reyes Syndrome in Tegan. The defense asserted that the amount of caffeine found in Tegan was a harmlessly small amount. The defense discovered on cross examination, that Dr. Hooper, the State's State witness, could not make the findings in the official toxicology report "fit" with a homicide. Dr. Hooper, a pathologist, on an unprovable "guess," had concluded that there was a laboratory error in the toxicology findings on the tissue. The State's toxicology expert, Dr. Scharman admitted that using the official toxicology report, that the amount of caffeine in the tissues was not lethal.

The defense interpreted the official reports as prepared. The State witnesses disavowed the findings in the official pathology and toxicology reports. The verdict indicates that the defense witnesses were not believed. The defense did not have the evidence to prove that the State tests and findings from 1982 were accurate.

In 1999, The West Virginia Supreme Court denied Marybeth's appeal which was based on the insufficiency of the evidence of Dr. Hooper's guess that the toxicology report was wrong. *State v. Davis*, 205 W. Va. 569, 519 S.E.2d 852 (1999).

Following the denial of her appeal, the defendant located the original spectrographs, tissue slides and

hundreds of pages of documents in the possession of the State Medical Examiner's Office or Dr. Hooper, the State's star witness. New genetic tests came available after 1999 that could safely be conducted on Seth Davis. Numerous Rule 33 Motions for a new trial on the basis of newly discovered evidence were filed and eventually consolidated into one motion. The lower Court Judge, denied the motion for a new trial. The West Virginia Supreme Court affirmed the denial of a new trial on an "abuse of discretion standard of review." A motion for reconsideration was timely filed and denied on February 16, 2005.

The Petitioner seeks a Writ of Certiorari to the West Virginia Supreme Court's decision that the newly discovered evidence below does not warrant the Petitioner a new trial. The newly discovered evidence and it significance is set out below.

(1) The Tissue Slides: The defense argued that Tegan died of Reyes Syndrome, the diagnosis of the treating pediatrician. In 1982, tissue slides of Tegan's autopsy were reviewed by two independent pathologists who reported, in the official pathology report, that the tissue slides met all of the criteria of Reyes Syndrome. Prior to trial, the defense filed specific motions seeking the tissue slides, Appendix H, and made an extensive personal search for them. The State responded that the slides had been lost with the passage of time. Appendix I. Dr. Hooper, who had performed the original autopsy and the preparation of the slides, denied they still existed.

At the trial, the State experts disavowed the official pathology report's findings, which indicated that Tegan had the brain edema associated with Reyes Syndrome and also the hospital laboratory tests that found that Tegan had high ammonia levels associated with Reyes Syndrome.

After the trial, Dr. Hooper revealed that she still had the original tissue slides in her possession. The tissue slides have been examined by two pathologists, Drs. Friedlander and Bove. Both pathologists concur in their

opinion that the slides prove that Tegan died of natural causes, Reyes Syndrome, or a genetic mimic thereof.

The tissue slides provide a wealth of information to dispute the contentions of the State. The slides show that Tegan had the brain edema of Reyes Syndrome. The ammonia associated with Reyes Syndrome produces little white bubbles that have the appearance of cotton balls in the photo enlargement of the brain tissue. A photo enlargement of the brain edema was shown to the West Virginia Supreme Court. A color photograph of the tissue slide of Tegan's brain is attached in Appendix G. This photograph illustrates exactly what killed Tegan Davis: ammonia bubbles in the brain. These ammonia bubbles are not associated with caffeine poisoning.

The remaining tissue slides show systemic viral infection and liver damage, the components of Reyes Syndrome. None of these pathology findings are associated with caffeine poisoning. The slides also rule out the tissue damage generally caused by a poisoning.

Standing alone, the tissue slides prove that Tegan died of Reyes Syndrome and not poisoning. Had the defense had this *Brady* evidence at trial, the defense would have had the evidence to rebut the testimony of the State, that there was no brain edema and could have shown the jury graphic proof of the effects this genetic disease causes.

(2) The Toxicology Spectrographs: Prior to trial, the prosecution represented that the State was going to defend the results of the 1982 toxicology findings which had been conducted at the West Virginia Medical Examiner's Office. In reliance on this promise, the defense withdrew a motion to redo the toxicology tests. During the trial, the State represented that their experts were interpreting the official toxicology findings. The defense was not aware that the prosecution regarded it the right of an expert, under the guise of interpretation of a report, to assume that a portion of the report was in error, and then to correct the perceived error. The State secretly built their

case on the assumption that the toxicology findings in the tissue were in error by 1000%. The State experts could not make the toxicology findings fit with a homicide, so, in their calculations, they increased the caffeine ten times above what was actually found in the tissue. A more detailed explanation of why and how the State altered the toxicology finding is set out in Appendix E and F. The Affidavit of Dr. Evans, a neutral toxicologist chosen by both the State and defense, is attached in Appendix D. Of particular importance is found on pages App. 30, 33, 34, 35, 36. His affidavit analyses the data found and explains why a caffeine poisoning did not occur.

Why the State had to Alter the official toxicology Report:

For the first few minutes after every drug is injected into the body, the drug will be concentrated in the blood before it flows through the blood and dilutes into larger volume of the tissues. The toxicology findings on Tegan indicated that the caffeine was concentrated ten times higher in her blood than in her tissue. This distribution of caffeine found in Tegan would exist after an injection of caffeine if caffeine was injected either a few minutes before or after her death.

When the quantity of caffeine found in Tegan's blood is measured by itself, the total caffeine is less caffeine than is found in a cup of coffee. Evans' Affidavit, page App. 35, par. 7, Appendix D. The fluid of the blood is only a fraction of the liquids found in all of the tissues. The total caffeine found in all of Tegan's tissues is harmless. The combined total caffeine found for both the blood and tissue is the harmless amount found in less than two cups of coffee. See Dr. Evans' Affidavit pages App. 35 and 36, par. 8, Appendix D. Because the caffeine is concentrated higher in the blood, the caffeine can only be diluting from the blood to the tissue. The direction of flow is controlled by the universal laws of science.

During Tegan's autopsy, Dr. Hooper found white beads in Tegan's digestive tract. The State expert, Dr. Hooper, thought these beads were the "plastic" remains of pills containing caffeine. The State's theory of a homicide required that the caffeine had to be given orally over a several day period and had to be lethal hours or even days before Tegan's death. Dr. Hooper could not make the small quantity and distribution of the caffeine actually found in the toxicology report to fit with a homicide. The distribution of the caffeine being higher in the blood than in the tissue meant that, what little caffeine was found, never reached the tissue. To get around this scientific obstacle, Dr. Hooper, in her calculations, increased the caffeine in the tissue ten times to equal the concentration in the blood. This alteration of the findings of the official report raised the caffeine to only about one-third of a lethal level, but with the blood and tissue being equal, an earlier, lethal amount of caffeine could be speculated. In her mind, Dr. Hooper increased the caffeine level from the harmless caffeine found in two cups of coffee to the lethal caffeine found in fifty to one hundred cups of coffee.

By Dr. Hooper's own admission, her imagined error in the toxicology was based on "a guess," for which she had "no proof." She also admitted that a vomiting three-year-old child's stomach could not hold the volume of pills needed to be consumed to make a poisoning possible. The State did not disclose this interesting aspect of their case prior to trial; and even today, the State refuses to explain how the toxicology findings are in error or how a caffeine poisoning is scientifically possible. The Hooper theory is the basis of the State's case, but the State will not explain her theory. See Appendix F for an analysis of Dr. Hooper's theory.

How the State altered the Toxicology Findings:

When a physician reads a toxicology report and sees the drug level found in the blood, he assumes that the measurement is representative of the drug's distribution

throughout the entire body. If he was only told of the amount of caffeine found in Tegan's blood, he would assume it had equally distributed to the tissue, which, in this case, it had not.

The Prosecution represented that their experts were interpreting the official toxicology findings. However, the State experts only used the caffeine found in the blood in their calculations, and ignored the lower caffeine levels in her tissue. The State experts compared the caffeine found in the blood to other cases of caffeine related deaths. In these comparison cases, however, the caffeine had had time to equalize into the tissue, and therefore, represented a greater amount of caffeine than was found in Tegan. The State experts gave formulas and quantities of caffeine to the jury that are accurate only if the official toxicology report is modified 1000% in the tissue. The result was a confusing array of conflicting testimony between to groups of experts, each claiming to be interpreting the toxicology report. This confusion is directly related to the State's belief that an expert can correct for imagined errors in the data provided to him. The West Virginia Supreme Courts publishing of data which shows the amount of caffeine found to be less than in a cup of coffee is the result of the confusion generated by the State. The West Virginia Court publishes the amount of caffeine the defense says is accurate, but the State cannot make fit.

The trial did not consist of two groups of experts with legitimate differences of opinion, rather, it was two groups of experts interpreting two different sets of data. The defense experts interpreted the whole toxicology report as being accurate, with the caffeine being ten times higher in the blood than the tissue. The State experts, on the other hand, in their interpretation, were using calculations that assumed the toxicology findings in the blood and tissue were equal. This modification of the toxicology report was heavily camouflaged behind the representations the State experts were interpreting the official toxicology report and that the State was defending the accuracy of the toxicology

findings. The defendant naively believed that guessing the toxicology findings were in error was covered in a pre-trial order barring Dr. Hooper from speculating on the chemical contents of Tegan's stomach.

At trial, when the defense stumbled onto the deception, the reasons offered by Dr. Hooper for her assumption that the toxicology findings were in error in the tissue were that: (1) the tissue tests were not run twice, (2) there was a suspected misplacement of the decimal point, (3) there was an unprovable laboratory error, and (4) a guess.

The Spectrographs prove the toxicology findings are accurate and the State Experts Wrong:

After the trial, the original spectrographs were located in the toxicology records of the State Medical Examiner's Office. Unlike the final toxicology report, the original spectrographs can be reviewed for accuracy. Contrary to Dr. Hooper's testimony, notations on the documents prove that the tests were run twice, with the same result.

Three Toxicologist have reviewed the Spectrographs:

The spectrographs have been reviewed by three toxicologists. *First,* Dr. Backer, who performed the tests in 1982, reviewed them and with one minor adjustment[1] confirmed their accuracy. He specifically contradicts Dr. Hooper and confirms that the decimal point is properly placed and that the results are accurate. *Second*, Dr. Evans of A.I.T. Laboratories was chosen by both the State and the defense as a neutral expert on toxicology. He also

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[1] Dr. Backer did a post-trial experiment. From his experiment he concluded that the caffeine levels might be increased as much as 60%, because of a recovery factor. The 60% increase raises the total caffeine found from one-and-one-half cups of coffee to slightly more than two cups of coffee. In order to make a caffeine poisoning scientifically possible the flow of the caffeine has to be reversed which requires an error in the toxicology of 1000%.

confirms the accuracy of the tests and the calculations. He places the total amount of caffeine at less than two cups of coffee and concludes that the caffeine came from an injection given at the time of Tegan's death. He concludes that a caffeine poisoning is not possible. Dr. Evans' Affidavit is attached as Appendix D. *Third,* Dr. Hupka, a toxicologist and pharmacologist also confirms the spectrograph's accuracy and explains why the amounts in the tissue could not be higher at an earlier time, and why the quantities and formulas used by the State do not apply to the toxicology findings in Tegan's case. These three toxicologists confirm the data and conclusion of the defense toxicologist, Dr. Shipe.

The West Virginia Supreme Court Justices also reviewed the spectrographs for themselves, and in direct contradiction of Dr. Hooper, they also confirm the toxicology findings in the tissue to be the exact amounts contended by the defense. Had the West Virginia Court taken the amounts of caffeine they publish, and compared these findings to the recognized levels of caffeine lethality from other cases, as set out in Dr. Evans' Affidavit, page App. 30, par. C, 1, found in Appendix D, the State Justices would be confronted with the fact that the total amount of caffeine found in Tegan's tissue is less caffeine than is contained in a cup of coffee: (Evans' Affidavit, page 9, App. 35, par. 7) or about 5% of a lethal amount. The total caffeine found in Tegan's entire body is less than two and cups of coffee. See Dr. Evans' Affidavit, pages App. 35-36, par. 12, Appendix D.

Dr. Hooper, the state expert, admitted that she could not make the toxicology findings fit with a homicide. Had the State not withheld the spectrographs in violation of *Brady v. Maryland*, the Defense would have had the demonstrative evidence to prove that the State's toxicology findings were accurate and a poisoning scientifically impossible.

(3) Dr. Hooper's Notes: After the trial, it was learned that the State had provided the defense only a select portion of the notes Dr. Hooper had retained from

the 1982 investigation. This discovery lead to the recovery of hundreds of notes, medical documents and memoranda, originally generated by Dr. Hooper acting in her capacity as a County Coroner.

A. At trial, the State argued that Tegan died from caffeine in diet pills, Dexatrim, found in the Davis home. Dr. Hooper speculated that little white beads found in Tegan's digestive tract were the plastic remains of the diet pills. The defense gastroenterologist testified that these beads are a common finding in sick children. The toxicology to determine the origin of the white beads was critical. The State experts conceded that their chemical content could not be determined from sight alone. The State experts conceded that PPA, the other ingredient besides caffeine found in diet pills, should have been found on the toxicology findings, but was not. The absence of PPA ruled out diet pills as the source of the caffeine. The Prosecution resurrected the issue and countered that PPA "might not have been tested for."

Dr. Hooper's withheld notes prove that in 1982 diet pills had been tested for and eliminated as the source of caffeine, thus stripping the State of the very murder weapon which was argued to the jury. The notes also prove that she conducted a futile but extensive search for any caffeine product which did not contain PPA, but could find no such product. In particular, she could not find a "timed released" caffeine product, mentioned as the murder weapon in the State Court opinion. If the defense had these notes found in her possession, and withheld in violation of *Brady v. Maryland*, the defense would have been able to prove the State's alleged murder weapon was eliminated in laboratory testing and that "timed released" caffeine product could not be found.

B. Dr. Hooper's withheld notes contained a memorandum of a phone call from a nurse, Carol Beckett, who was on the ambulance when Tegan died. She told Dr. Hooper that she thought too much Valium had been administered to Tegan by the treating physician. On a

post-trial deposition, Dr. Hooper stated that the police had threatened the nurse into silence.

On cross examination at trial, the nurse's belief about the valium did come out. She thought the treating physician had murdered the child with valium. In the heat of the trial, this accusation appeared to be the unsubstantiated allegation of one witness. The connection between valium and caffeine was not realized. Although rarely used today, caffeine was used as an antidote to valium in 1982. The total amount of caffeine found in Tegan is the exact amount that would have been injected into Tegan to counteract a suspected valium overdose. The distribution of the caffeine fits for an injection given at the time of Tegan's death. If the defense had been provided with this *Brady* evidence, the defense would have had a person with the means, motive and opportunity to have injected caffeine in an amount compatible, almost to the milligram, with what was found by the toxicologist in 1982.

(4) New Genetic Testing: The State alleged that Seth Davis was injected with insulin. The defense contended that Seth Davis suffered from Human Growth Hormone Deficiency. This defense was based on a test taken at Pittsburgh Children's Hospital shortly after Seth's arrival. This test was conducted under ideal conditions, in that Seth was under stress and was putting out the maximum growth hormone his body could produce. The test indicated that he was only producing one half of what his body needed. This test could not be replicated before the trial, because a stress test would have endangered Seth's life.

The experts from Pittsburgh Children's Hospital dismissed the test results and said that it was "inconceivable" that Seth had Human Growth Hormone Deficiency. After the trial, new and safer tests became available: Protein Binding Tests 1 and 3. These tests now prove to a scientific certainty that Seth suffered from untreated Human Growth Hormone Deficiency as represented by the defense.

These tests not only prove that Seth was the victim of professional negligence by Marybeth's accusers, they also provide additional proof that Tegan died of the same genetic defect. The defense presented a geneticist, Dr. Barry Wolfe, who testified that there are at least twenty genetic defects in the energy producing portion of the liver genes that would produce the Human Growth Hormone Deficiency in Seth and also produce the Reye's Syndrome in Tegan. Both afflictions arise in the liver and are caused by inborn errors of metabolism.

The State showed a video of Seth in his vegetative state and argued that his injuries were the result of one injection of insulin. The Prosecutors argued against the testimony of the geneticist, who contended that these two genetic afflictions were related. Untreated Human Growth Hormone Deficiency explains all of the alleged injuries suffered by Seth. These new genetic tests bolster the credibility of the defense witnesses who testified that the insulin found in Seth was the result of large doses of glucose administered to Seth prior to his arrival at the hospital, and that the test for artificial insulin was flawed due to its handling. The emotion producing film of Seth, can now be viewed as that of a child with a genetic defect, instead of a victim of a crime.

All of the newly discovered evidence is exculpatory or impeaching. With the exception of the new genetic tests, all of the new evidence was found in the control of investigators for the State. The newly discovered evidence is consistent with the other evidence, and proves to a scientific certainty that the two children suffered only from natural causes. The State of West Virginia, has not and cannot offer any explanation of how this new evidence is consistent with guilt. This new evidence provides a complete picture of the events. The children suffered from a common genetic defect and the amount of caffeine found in Tegan was administered by healthcare attendants to counter act valium.

The State Court's Opinion: The West Virginia Supreme Court circumvents this overwhelming evidence of innocence by: (1) Using an abuse of discretion standard of review instead of applying *Brady v. Maryland*. The State Court uses this standard, even though all of the evidence, with the exception of the new genetic tests, was either in the possession or control of the State. The State Court says all of this evidence is "merely cumulative" to the testimony the defense offered at trial.

(2) The West Virginia Justices read the spectrographs for themselves and concluded that the toxicology report accurately reported the totals on the spectrographs. In the process, they became witnesses who could not be confronted with the meaning of this evidence. The State Justices ignored the testimony, depositions and affidavits of four board certified toxicologists. As a result of this process, they have affirmed a conviction of a caffeine poisoning when the caffeine is less than found in a Coca Cola or two cups of coffee. The Justices affirm the accuracy of the toxicology data, and, in the same opinion, acknowledge the State experts could not make this same data fit with a homicide.

(3) The State Justices invent evidence to balance against this new scientific evidence. The West Virginia Justices claim that "caffeine pellets" were found in Tegan's gastric tract. Outside the Court's opinion, no one has ever testified that the white beads Dr. Hooper found were caffeine. Dr. Hooper said they were "inert, plastic." Even the prosecutor admitted, "She never said they were caffeine."

(4) The Court takes the position that expert opinion is separate from its underlying factual basis. The West Virginia Court takes the position that the defendant must

prove that the State experts held a different opinion from the one they testified to at trial, or else the appeal fails: "Opinion is opinion." Even though the underlying data used to support the State expert's opinion has been proven to be false, their opinions still exist on the record. In the West Virginia judicial mind the only way to get a new trial is to prove perjury on the part of the State experts. The fact that the underlying data the experts relied upon would not pass a *Daubert* reliability test, makes no difference to the West Virginia Court. One can only speculate what the State witnesses would do when confronted with the new evidence. Rule 33 Motions are by the affidavit or deposition of those willing to cooperate with the defense.

(5) The Court sets an unreasonable diligence standard for the defense attorney. The defense attorney filed written motions for the tissue slides, Appendix H, and to redo the toxicology tests. The State responded that the tissue slides no longer existed and that the State would bring Dr. Backer to trial to defend his test results. According to the West Virginia Court, the attorney is not diligent because he did not file a general discovery motion, when a specific motion failed. The defense attorney is to subpoena evidence from State witnesses, who have denied they have the evidence. The defendant is to be faulted for relying on the representations of the State.

Even though conclusive proof of innocence has come forward in the form of tissue slides, spectrographs and notes from the original investigation found in the possession of the State, the West Virginia Supreme Court simply will not afford to Marybeth Davis the protections of the Constitution that are set out in *Brady v. Maryland*.

REASONS FOR GRANTING THE PETITION

POINT ONE: The State of West Virginia refuses to follow *Brady v. Maryland*. Although the withheld evidence in the form of spectrographs, tissue slides and notes, was: (1) found in the possession of the State and her investigators, (2) was clearly exculpatory, and (3) was more than sufficient to raise a reasonable doubt, if not provide conclusive proof of innocence, the West Virginia Supreme Court refuses to afford the petitioner her Constitutional Rights of Due Process as set out in *Brady* and its progeny. The West Virginia Court uses an "abuse of discretion standard of review" with the result that any evidence, whether real or imagined is sufficient to deny her a new trial. This Court has a duty to enforce *Brady*.

The West Virginia Supreme Court blatantly denies the petitioner the protections afforded by *Brady v. Maryland*, 373 U.S. 83, 83 S. Ct. 1194, 10 L. Ed. 2d 215 (1963). Although the post trial discovered notes, spectrographs and tissue slides were in the control of the State, the West Virginia Court refuses to follow *Brady v. Maryland* and relies upon an "Abuse of Discretion Standard of Review" so that the Court can use any evidence, imagined or otherwise, to deny the petitioner her *Brady* Constitutional Due Process Rights. A number of Courts do use the abuse of discretion standard for newly discovered evidence, mostly for recanted testimony or new evidence found beyond the control of the State. This case offers the opportunity to resolve any conflict in the laws, if any exists, between *Brady* and this parallel line of cases. Petitioner contends that with the withheld *Brady* evidence, the petitioner can prove her innocence to a scientific certainty.

This case presents a clear *Brady* viclation. In the case of *Banks v. Dretke*, 124 S. Ct. 1256 (2004), the United States Supreme Court said: "Elements of *Brady* prosecutorial

misconduct claim are: (1) the evidence at issue must be favorable to accused, either because it is exculpatory or because it is impeaching; (2) evidence must have been suppressed by state, either willfully or inadvertently; and (3) prejudice must have ensued." The petitioner meets these standards.

The new evidence found in this case was from one of three sources: (1) spectrographs were located in the State Medical Examiner's Office; (2) tissue slides and hundreds of pages of notes from the earlier investigation were located in the possession of Dr. Anne Hooper, the State's Star Witness, who performed the autopsy to meet the requirement of the County Coroner; and (3) genetic tests that came into existence after the trial. The new evidence is favorable to the accused and their absence was clearly prejudicial to the defendant. This new evidence is *Brady* material.

First: There is no Cumulative Evidence Exception to *Brady*. *Brady* states that the new evidence found must be either "exculpatory or impeaching." The West Virginia Court says that the new evidence is "merely cumulative." There is no "cumulative evidence" exception to *Brady*.

Second: There is no "potentially available" exception to *Brady*. The West Virginia Opinion states at page 5: "During the consideration of the appellant's motion for a new trial, both the State and Dr. Hooper indicated that *they potentially* made available to the appellant the evidence in their possession." (Emphasis added.)

The West Virginia Courts want to remove the State Medical Examiner's Office and its various departments, including the County Coroner's office from the obligations that *Brady* imposes. The spectrographs were located in the State Medical Examiner's Office. The tissue slides and notes were located in the possession of Dr. Anne Hooper who was acting out the requirements of law as a County Coroner, to do a required autopsy. Both were investigative agents of the State.

In the case of *Strickler v. Greene*, 527 U.S. 263, 119 S. Ct. 1936 (1999), the Court said: "The due process duty of the prosecution under *Brady* to disclose evidence favorable to defendant is applicable even though there has been no request by defendant, and encompasses impeachment evidence as well as exculpatory evidence." In the case before the Court, the prosecution went so far as to assert that it had provided all *Brady* material. The defendant had requested the tissue slides from the State in writing and from Dr. Hooper informally. The West Virginia Court finds fault with the defense counsel for not subpoenaing evidence from State witnesses who denied they possessed the evidence.

Third: There is no Conclusive Proof of Innocence Standard under *Brady*. The West Virginia Court says that "The spectrographic results – they would not have conclusively contradicted the overall evidence that Tegan died of caffeine poisoning." *Brady* and its progeny do not require that the defendant prove her innocence "conclusively." *Kyles v. Whitley*, 514 U.S. 419, 115 S. Ct. 1555 (1995) states: "*Brady* does not require demonstration by preponderance that disclosure of suppressed evidence would have resulted ultimately in defendant's acquittal; rather, touchstone of materiality is 'reasonable probability' of different result." In *Banks v. Dretke*, 124 S. Ct. 1256 (2004), "Materiality standard for *Brady* claims is met when favorable evidence could reasonably be taken to put whole case in such different light as to undermine confidence in verdict."

But for the *Brady* violations, the defense would have had the physical proof to have confronted the state experts at trial who claimed the toxicology report was not accurate and who also said there was no brain edema of Reyes Syndrome. The West Virginia Supreme Court is simply not going to follow *Brady v. Maryland* and this Court should take the necessary steps to protect the Constitutional rights of those in their courts.

POINT TWO: The State of West Virginia has begun a very dangerous practice. Under the guise of interpreting scientific reports, the State experts are permitted to assume that portions of the official reports are wrong and then are permitted to secretly correct the imagined error. Petitioner contends this is pure "junk science." In this case, the State experts imagined that there was an error in the toxicology report and modified the findings from the equivalent caffeine amount of a harmless two cups of coffee to a lethal fifty or one hundred cups of coffee. The petitioner contends that it is a violation of her Due Process Rights to affirm a conviction that rests on the unproven assumption that the State scientific evidence is in error. Further, the petitioner contends that it is fundamentally unfair for the witnesses to secretly correct the perceived error by guessing the amounts are ten times higher than actually found. petitioner contends this should be considered to be prosecutorial misconduct.

A. The West Virginia Supreme Court is approving of, if not adopting, an extremely dangerous practice that permits State experts and Justices of the Court, when laboratory findings are in disagreement with their conclusions, to remedy the findings by altering the evidence to suit the conclusion they seek. The West Virginia Court quotes Dr. Hooper (Opinion P. 4): "and I decided in this case that the tissue levels didn't fit." In order to make this data "fit," as explained above, Dr. Hooper increased the level of the caffeine in the tissue to equal the caffeine concentration in the blood, an increase of 1000%. See Appendix F. The petitioner contends that if it is proven that the laboratory data is not reliable, that the only thing that can be concluded is that the data is not correct. What the data would be but for the laboratory error is pure speculation and "junk science." The presumption of innocence should bar any

attempt to make imaginary data fit so that a crime becomes possible. Correcting for imaginary errors should be considered prosecutorial misconduct.

B. The West Virginia Court requires the petitioner to prove perjury on the part of the State witnesses in order to obtain a new trial. The West Virginia Court says that "opinion is opinion," even if it relies upon or communicates false information.

> "In this Court's view, professional opinions given by competent experts, even if contradicted by opinions of other competent experts, cannot be said to be inherently false. *Opinion is opinion*, and the Court believes that only if it is shown than an expert's testimonial opinion is diametrically opposite to the opinion which he actually and truthfully holds at the time can the expert's opinion be said to be false. That has not been shown in this case." (Emphasis added.)

The Petitioner contends this case is distinguished from cases where two experts interpret the same data and arrive at different conclusions. In this case, the Petitioner has shown that the underlying factual assumptions of the State experts are false. The Petitioner should not have to prove perjury on the part of State witnesses to obtain a new trial, but should only have to raise a reasonable doubt about the reliability of the data upon which the State experts relied. As a minimum threshold, the defendant should only have to prove that the data would not meet a reliability standard of *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 113 S. Ct. 2786 (1993).

C. The West Virginia Court not only permits, but creates false evidence of its own. The West Virginia Court claims that "caffeine pellets" were found in the child's intestines. The toxicology report, bolstered by the withheld spectrographs, prove that caffeine of only 1% of a cup of coffee was found in Tegan at the time of her death. Dr. Hooper, who discovered the beads, speculated that the beads were "inert, plastic." The prosecuting

attorney admitted, "She never said they were caffeine." The petitioner contends that it is fundamentally unfair to use imaginary "caffeine pellets" to balance against tangible evidence and the trial record.

POINT THREE: This Court can determine what diligence is required of an attorney in his efforts to obtain evidence in the control of the State. The West Virginia Court ruled that an attorney is not diligent for failing to request general discovery, after specific discovery has failed; the defense attorney is to issue subpoenas for evidence that the State has indicated no longer exists. The Petitioner contends that the West Virginia Court violates the Petitioner's Due Process Rights by creating an unreasonable standard of diligence for an attorney to meet, a standard that is clearly not required under *Brady*. The Petitioner contends that the Court applies an unreasonable standard for evidence that is cumulative to what was presented at trial.

A. The West Virginia Court creates a Due Process violation by requiring, in a fourteen year old case, an unreasonable level of diligence that no attorney could be expected to meet. (A) The defense attorney was told in writing and on the record that the State had provided all *Brady* material. (B) In response to a written motion to redo the toxicology tests, the counsel was assured, in writing and on the record, that the State was going to bring in Dr. Backer, the toxicologist who conducted the tests, to defend his toxicology findings. The defense was led to believe he would not have to prove the reliability of the State's own tests. (C) In response to a Motion, the prosecution assured the Court and the defendant that Dr. Hooper would not speculate on the chemical content of the child's stomach. (D) In response to a specific motion for all tissue and tissue slides, the defendant was assured that

all tissue had been destroyed with the passage of time. (E) The defense personally contacted every institution and individual that seemed to have any possibility of having any evidence. To meet the West Virginia standard of diligence, the defense should have disbelieved the prosecuting attorney and issued subpoenas to individuals and organizations that denied that the evidence was in their possession. The defense counsel was to have filed a general request for discovery, when a specific request failed. This is simply beyond reasonable expectations of diligence. This court can help define what diligence is required of an attorney in a fourteen-year-old case to obtain evidence in the control of the State. Petitioner contends that *Brady* and its progeny have answered the question.

B. The West Virginia Court defines cumulative evidence as "additional evidence of the same kind to the same point." (1) Petitioner contends that in a case in which the State experts disavow the original pathology report, and claim there is no brain edema of Reye's Syndrome; that photo enlargements of tissue slides showing the brain edema of Reyes Syndrome is new evidence, and not merely cumulative to an official report the State experts disavowed. (See Appendix G. The white cotton balls are the brain edema.) (2) Petitioner contends that spectrographs that prove toxicology tests were run twice and which can be reviewed for accuracy are new evidence to impeach those who claim the tests are in error by 1000%. (3) Petitioner contends that new genetic tests developed after the trial that rebut the testimony of State witnesses who said it was "inconceivable" that the child was the victim of a genetic defect is more than merely cumulative. Each of these withheld pieces of evidence is new and different and have their own unique evidentiary value. One can only wonder as to what amount of evidence would be required to exceed the cumulative evidence level set by the West Virginia Court.

POINT FOUR: The Court has the opportunity to determine the effect of scientific advances that come into existence after the trial. Is the new scientific evidence, to be treated as *Brady* evidence, or should the Court follow some other standard.

The West Virginia Court wants to place all evidence not in existence at the time of the trial out of the protections of *Brady*. In this case, the Genetic Tests: Protein Binding tests 1 and 3 were not known in the medical community in 1997. They were accepted as accurate by the medical community in 1999 and are now treated as the definitive tests for Human Growth Hormone Deficiency. The State claimed that it was "inconceivable" that Seth had Human Growth Hormone Deficiency. These new tests prove that the State experts were wrong and defense experts were correct in their diagnosis. The petitioner contends that *Brady* covers unavailable evidence to the defendant whether it is in the possession of the State or not. Scientific advances that prove innocence should be welcomed.

POINT FIVE: When do judges become witnesses?

The procedural process by which the West Virginia Justices arrived at their decision after reading the spectrographs for themselves is now challenged as a violation of the defendant's Due Process and Confrontation rights under the United States Constitution. The Justices became witnesses who cannot be confronted. The Commentary found under Canon 3 of the Code of Judicial Conduct adopted by the West Virginia Courts supports the petitioner's position: "A judge must not independently investigate facts in a case and must consider only the evidence presented."

Reading the spectrographs for themselves would be a Due Process violation according to the Honorable George

D. Marlow, Judge of the Intermediate Appellate Court of the State of New York, in his article "From Black Robes to White Lab Coats; The Ethical Implications Of A Judge's Sua Sponte, Ex Parte Acquisition of Social and Other Scientific Evidence During the Decision-Making Process." St. John's L. Rev., Spring 1998, P. 291.

In this case, the West Virginia Supreme Court Justices interpreted the spectrographs for themselves and ignored the depositions and affidavits of three toxicologists who reviewed the spectrographs and concluded that these caffeine levels are only a fraction of the amounts required to harm anyone. Most importantly, they ignored State witnesses who admitted that, if the toxicology report is correct, no poisoning is possible. The West Virginia Court publishes the levels of caffeine that would be found in a person after drinking two cups of coffee, and still they affirm a caffeine poisoning. *Daubert* provides that the Court can take judicial notice of such laws of science as thermodynamics. Here the State Court ignores the testimony of experts on the known levels of caffeine lethality and the process by which caffeine distributes. Is it a problem of too much or too little science? The petitioner contents that it is neither. It is a problem of notice and an opportunity to respond.

When the State experts testify that brain edema does not exist, and the Court chooses to ignore a photo of the brain edema, the Court is acting as a blind pathologist. The petitioner makes the modest proposal that when Justices are going to make scientific assumptions contrary to the record that the litigant be notified of the assumption and afforded an opportunity to confront the new experts in black robes who appear to be unfettered by the record.

POINT SIX: Amendment VI of the U.S. Constitution requires that "the accused shall enjoy the right – to be informed of the nature and cause of the accusation." If this court is inclined to revisit *Daubert* in a criminal case, this case offers a conviction based on pure "junk science." This case is different from most cases in that it is the defendant who contends that the state scientific evidence is accurate and proves her innocent to a scientific certainty. The West Virginia Supreme Court has even published, as accurate, the tissue levels the state expert admits, does not fit for a poisoning. The petitioner contends that to be informed of the "nature and cause" of the accusation means more than just words on an indictment. Petitioner contends she has the right to demand that her accusers understand what "the nature and cause" of the alleged criminal act are, so that when she presents evidence of absolute proof of innocence, the courts will recognize it. The petitioner contends that the equal protection of the laws includes the laws of science.

In a caffeine poisoning case, any Court that publishes the caffeine levels found in the victim as less than 5% of a lethal amount and less caffeine than found in two cups of coffee, does not understand "the nature and cause" of the accusation. The petitioner contends that as an extension of her Due Process Rights, she has a right to have the Courts who judge her to understand the "nature and cause of the accusation" so that when the defendant proves to a scientific certainty her innocence with withheld *Brady* material, the Courts will recognize the importance of the scientific data presented.

Petitioner contends that the "Equal Protection of the Laws" also includes the laws of science. Marybeth Davis should not have a conviction of murder by caffeine affirmed wherein the caffeine is less than found in two cups of coffee and which could never have been higher. The

West Virginia Court contends this harmless amount of caffeine is a murder weapon. If this were true, this amount of caffeine would be a controlled substance, not one of the most common ingredients found in soft drinks, consumed by children every day.

Petitioner recognizes that *Daubert* concerns a civil evidentiary rule. However, West Virginia has adopted the Federal Rules of Evidence. This case offers the Court the chance to examine "Junk Science" in the criminal setting. This case offers a balance of fairness, in that it is the criminal defendant who is claiming that the State's evidence proves her innocence to a scientific certainty. This case is the opposite of *Daubert* in that the State is claiming that it can base a conviction on the assumption that the State's data is not reliable. This Court can set the limits of how scientific data can be corrected or ignored. This case shows what happens when the warnings of *Daubert* are ignored by the Court.

POINT SEVEN: Munchausen Syndrome By Proxy:

This case gives this Court the opportunity to look at what shocked the Courts of Great Britain: Munchausen Syndrome By Proxy.

See: Royal Courts of Justice, Strand, London, WC2A2LL, January 19, 2004, Angela Cannings, Appellant, v. Regina. In the Matter of B (A child) And the Matter of the Children Act 1989 between Kent County Council and (1) the mother and (2) the father.

Munchausen Syndrome By Proxy is named after Count Munchausen, who made up heroic stories to gain attention to himself. Dr. Roy Meadows named the disorder "by Proxy" for mothers who allegedly manufactured a tragedy to befall their children to gain attention for themselves.

More appropriately called Munchausen Syndrome By the Prosecution, State experts on Munchausen Syndrome

By Proxy go about the Courts of the United States testifying in behalf of the State, so that children can be taken from their parents and have their parents placed in jail; usually grief stricken parents of children with genetic defects or Sudden Infant Death Syndrome (SIDS). This diagnosis is not approved by the American Psychiatric Association as it is not based on a diagnosis, but is conclusion driven. The trials often become a witch hunt, instead of a search for the truth. Any type of behavior becomes a basis for proving the parent has this mental illness.

Since, the trial of this case, the Courts of Great Britain have banned the use of Munchausen Syndrome By Proxy in their Court rooms and have ordered a review of the cases involving this controversial diagnosis. It turns out, Dr. Roy Meadows, who coined the name and the concept, did so to hide his own malpractice. Parliament has been warned that it may have to pay out hundreds of millions of dollars in damages because of the use of this phoney diagnosis in their court rooms. This case presents a similar scenario, in that the new genetic tests prove Marybeth's accusers were guilty of malpractice. This case is an example of the prejudice this phoney diagnosis causes: The State Court made up Munchausen by prosecution fables of "caffeine pellets" to draw attention away from the fact that the State has never explained how a crime was consistent with the toxicology findings. This is simply profile evidence that aids the prosecution to vilify the defendant and offers nothing to determine whether a crime occurred.

CONCLUSION

The scientific issue is simple: No one in the recorded history of mankind has ever died of so little caffeine as published by the West Virginia Supreme Court. Appendix D. Dr. Evans' Affidavit, pages, 5, 8, 9, 10 explains why a poisoning is impossible. The West Virginia Court quotes Dr. Hooper (Opinion p. 4): "And I decided in this case that the tissue levels didn't fit." However, the West Virginia

Court publishes, as accurate, the very data the State experts testified "didn't fit" with a homicide. The West Virginia Supreme Court has published, as accurate, the levels of caffeine found in Tegan Davis, to be less than found in a Coca Cola or two cups of coffee. The lower Court acknowledges, as accurate, that the caffeine was ten times less in the tissue, as contended by the defense. This pattern of caffeine distribution proves that it is a scientific impossibility for a poisoning to have occurred in this case, even by the admission of the State witnesses.

But for the violations of *Brady v. Maryland*, the defendant would have had the demonstrative evidence to have confronted the State experts who claimed that Tegan did not die of Reyes Syndrome: or who claimed the decimal point on the toxicology tests was misplaced, or who claimed that the laboratory tests were not run twice. New genetic tests prove that the State experts were absolutely wrong when they said it was "inconceivable" that Seth had Human Growth Hormone Deficiency. All of the new evidence and notes provide compelling, if not conclusive proof of innocence. These children suffered a tragedy of nature, not man.

Although, this is a clear Due Process violation to withhold this *Brady* protected material, the underlying problem lies in the Constitutional provision, that the accused shall be informed of the "nature and cause of the accusation." The State of West Virginia has never explained how a caffeine poisoning is scientifically possible in this case. The petitioner contends these two words, "nature and cause" are not wasted surplusage, but require the accusers to understand the basic physical and scientific process of the alleged act, so that when positive proof of the impossibility of the alleged act is presented as a defense, it will be recognized.

The authors of *Daubert* are offered the opportunity to include the universal laws of science under the protection of the equal protection of the laws. The amount of caffeine found in Tegan Davis is well below any amount of caffeine

that has ever harmed anyone in the recorded history of mankind. The amount is less than is consumed by millions of people each day. The West Virginia Supreme Court should not be permitted to apply the physical laws of science in an unequal and discriminatory fashion.

The West Virginia Justices, by reading the spectrographs for themselves, in a manner totally contrary to the interpretation of three board certified toxicologists, became witnesses against the petitioner, she cannot confront. The West Virginia Justices ignore the affidavits and depositions of true experts for the sole purpose of evading the scientific evidence before them.

This is a case where innocence has been proven to a scientific certainty. This Court has the opportunity to correct a grave injustice and restore Marybeth to her other two children.

Respectively submitted by,

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IN THE SUPREME COURT OF
APPEALS OF WEST VIRGINIA

September 2004 Term

No. 31679

STATE OF WEST VIRGINIA,
Plaintiff Below, Appellee

v.

MARYBETH DAVIS,
Defendant Below, Appellant

Appeal from the Circuit Court of Greenbrier County
Honorable Frank E. Jolliffe, Judge
Criminal Action No. 96-F-102

AFFIRMED

Submitted: September 14, 2004
Filed: December 2, 2004

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The Opinion of the Court was delivered PER CURIAM. JUSTICE STARCHER dissents and reserves the right to file a dissenting opinion.

SYLLABUS

"A new trial will not be granted on the ground of newly-discovered evidence unless the case comes within the following rules: (1) The evidence must appear to have been discovered since the trial, and, from the affidavit of the new witness, what such evidence will be, or its absence satisfactorily explained. (2) It must appear from facts stated in his affidavit that plaintiff was diligent in ascertaining and securing his evidence, and that the new evidence is such that due diligence would not have secured it before the verdict. (3) Such evidence must be new and material, and not merely cumulative; and cumulative evidence is additional evidence of the same kind to the same point. (4) The evidence must be such as ought to produce an opposite result at a second trial on the merits. (5) And the new trial will generally be refused when the sole object of the new evidence is to discredit or impeach a witness on the opposite side." Syllabus, *State v. Frazier*, 162 W. Va. 935, 253 S.E.2d 534 (1979).

Per Curiam:

This is an appeal by Marybeth Davis from an order of the Circuit Court of Greenbrier County denying her a new trial, on the basis of newly discovered evidence, on charges that she had murdered her infant daughter and had attempted to injure, by poisoning, her infant son. The appellant was sentenced to life in the penitentiary, without mercy, on the murder charge, and to from three to eighteen years in the penitentiary on the attempt to injure charge.

I.

FACTS

In November 1996, the appellant was indicated [sic] for the homicide of her infant daughter Tegan, and for attempting to injure, by poisoning, her infant son Seth. The case was subsequently tried before a jury, and during the trial, the State presented evidence indicating that at the time of Tegan's death, her body contained lethal levels of caffeine. The State also presented circumstantial evidence suggesting that the appellant had administered the caffeine.

To support the charge that the appellant had attempted to injure her infant son Seth, by poisoning, the State introduced evidence showing that Seth was taken to a hospital suffering from an extraordinarily low level of blood sugar. Subsequent tests revealed that the child's insulin level was extraordinarily high. The tests also suggested that the insulin was not manufactured by Seth's body, but came from an exogenous or outside source. Further, circumstantial evidence introduced by the State suggested that the appellant, who was a nurse, had administered the insulin.

To counter the State's evidence suggesting that she had poisoned her daughter Tegan, the appellant introduced the testimony of Dr. James R. Shipe, who had reviewed the medical examiner's report and the toxicology report which formed the basis of the State's evidence. Dr. Shipe expressed the opinion that Tegan's blood concentration of caffeine was elevated, but not extremely high, and he also stated that caffeine was not the cause of her death. He noted that the toxicology report showed varying concentrations of caffeine in Tegan's blood and tissues, suggesting that the toxicology report was inaccurate.

The appellant, to explain how her daughter Tegan died in the absence of caffeine poisoning, took the position that she had died of Reye's Syndrome or a genetic mimic of it. She introduced expert evidence indicating that Tegan exhibited the symptoms of, and met the criteria of having, Reye's syndrome.

At the conclusion of the trial, the jury found the defendant guilty of murdering her daughter and of attempting to injure her son by poisoning. The appellant appealed her conviction to this Court, and this Court in *State v. Davis*, 205 W. Va. 569, 519 S.E.2d 852 (1999), affirmed the appellant's conviction.

After this Court affirmed the conviction, the appellant filed a number of motions with the Circuit Court of Greenbrier County requesting a new trial on the basis of new or after-discovered evidence. Ultimately, the motions were consolidated, and the trial court took them under consideration. After reviewing the evidence and the motions, the trial court denied the motions. It is from the trial court's denial of the motions for a new trial that the appellant now appeals.

On appeal, it appears that the appellant claims that after trial, she discovered certain spectrographic evidence and tissue slides, which proved that her daughter Tegan died of Reye's Syndrome and that caffeine poisoning was not possible. Secondly, the appellant claims that genetic tests performed after trial proved that her son Seth was a victim of a genetic disease, rather than insulin poisoning. Lastly, the appellant claims that the State provided the jury with false information on the level of caffeine in her daughter's body.

II.

STANDARD OF REVIEW

In the present appeal, the question is not whether the evidenced adduced at trial was sufficient to support the jury's verdict. That question was disposed of by this Court in *State v. Davis, id.* Instead, in the present appeal, the question is whether the circuit court properly denied the appellant's motions for a new trial on the basis of after-discovered evidence.

This Court has indicated that as a general proposition, it will review a circuit court's ruling on a motion for a new trial under an abuse of discretion standard. *In re State Public Building Asbestos Litigation*, 193 W. Va. 119, 454 S.E.2d 413 (1994). The Court has also indicated that in reviewing such rulings, the Court will not disturb the lower court's ruling unless the lower tribunal's conclusions are plainly wrong or against the weight of the evidence. *State v. Crouch*, 191 W. Va. 272, 445 S.E.2d 213 (1994).

Additionally, in *State v. Helmick*, 201 W. Va. 163, 495 S.E.2d 262 (1997), the Court indicated that for a convicted defendant to prevail on a motion for a new trial based on newly-discovered evidence, the defendant has the burden of proving five elements. Those elements are summarized in the Syllabus of *State v. Frazier*, 162 W. Va. 935, 253 S.E.2d 534 (1979), as follows:

A new trial will not be granted on the ground of newly-discovered evidence unless the case comes within the following rules: (1) The evidence must appear to have been discovered since the trial, and, from the affidavit of the new witness, what such evidence will be, or its absence satisfactorily explained. (2) It must appear from facts stated in his affidavit that plaintiff was diligent in

ascertaining and securing his evidence, and that the new evidence is such that due diligence would not have secured it before the verdict. (3) Such evidence must be new and material, and not merely cumulative; and cumulative evidence is additional evidence of the same kind to the same point. (4) The evidence must be such as ought to produce an opposite result at a second trial on the merits. (5) And the new trial will generally be refused when the sole object of the new evidence is to discredit or impeach a witness on the opposite side.

II [sic].

DISCUSSION

As has previously been indicated, the appellant on appeal argues that after trial, she discovered spectrographic results and tissue slides which showed that her daughter Tegan could not have died of caffeine poisoning as was claimed by the State during her trial. She claims that in light of the discovery of this new evidence, the circuit court should have granted her a new trial.

After the death of the appellant's daughter, Tegan, an autopsy was performed by Dr. Anne Hooper, a physician selected by the appellant. Dr. Hooper requested that toxicology studies be performed by the State Medical Examiner's Office, and she provided samples of Tegan's body fluids and tissue, so that the Medical Examiner's Office could perform the studies. The spectrographic results and tissue slides in issue in the present appeal were apparently prepared as a part of the toxicology studies. The studies resulted in a toxicology report which was examined by Dr. Hooper and various other medical experts who testified at the appellant's trial.

After reviewing the toxicology report, as well as the results of the autopsy which she performed, Dr. Hooper concluded the appellant's daughter Tegan had died of a caffeine overdose, and she so testified at the appellant's trial. It is apparent from Dr. Hooper's testimony that her conclusion was based not only on the toxicology report, but also upon her autopsy, which showed a great number of "beads" from time-released caffeine capsules throughout Tegan's intestinal tract. Dr. Hooper concluded that the placement of the "beads" throughout the intestinal tract indicated that the child had been fed caffeine over a period of days.

There was some inconsistency in the levels of caffeine in Tegan's fluids and in certain tissue samples, according to the toxicology report, and these inconsistencies were pointed out to Dr. Hooper during trial. She acknowledged that they existed, but she indicated that the caffeine levels in Tegan's bile were lethal and that the bile had been processed through the liver suggesting lethal levels in the liver. She also remained firm in her opinion that the overall evidence showed that Tegan had died of caffeine poisoning. When pressed about how she could reach a conclusion in light of the inconsistencies in certain of the tissue samples, she testified:

Well, I formed my judgment not on any one detail. I formed my judgment on the collective ___ all the evidence that I had. And obviously, if I have something which doesn't fit, I have to decide what to do with it. And I decided that in this case that the tissue levels didn't fit, because probably they weren't done properly, rather than those were the true values. But I have to make my decision on the basis of all the evidence I had, not just a little tiny piece of it.

The jury heard this, and copious evidence from the appellant's experts indicating that Dr. Hooper's conclusion was inaccurate. The jury apparently concluded that Dr. Hooper's conclusion was accurate.

In her motion for a new trial before the circuit court, the appellant claimed, and in the present appeal, the appellant claims that only after trial did she discover the spectrographic results and tissue slides in issue. She argues that the spectrographic results suggest that the caffeine concentration in Tegan's flesh was lower than that found by Dr. Hooper in the child's fluids, and that the lower concentration in the flesh suggests that Tegan did not die of caffeine poisoning. In effect, the appellant is again raising a point initially developed at trial.

During the consideration of the appellant's motion for a new trial, both the State and Dr. Hooper indicated that they potentially made available to the appellant the evidence in their possession. The evidence shows that the State provided the appellant with full disclosure of its investigatory findings, including nearly 3,000 pages of documents even though the appellant had not requested discovery. (See footnote 1) Dr. Hooper, in an affidavit, stated that she had met with the appellant's trial counsel on numerous occasions prior to trial and that she provided him access to anything in the case which he wanted. Specifically, Dr. Hooper stated:

4. Over the years, I met with Paul Detch [the appellant's attorney] on several occasions to discuss Tegan's case. I cannot be specific about the dates of these meetings. I recall some meetings prior to the indictment of Marybeth Davis in 1996, but most of the meetings were after the indictment but before trial.

5. I openly discussed Tegan's case with Mr. Detch, and readily provided any and all information that he requested.

6. Mr. Detch requested fresh tissue of Tegan Davis on more than one occasion, starting in 1995, presumably for toxicology tests. I informed him that no fresh tissue had been preserved for 13 years or longer.

7. My autopsy report, as well as the report of a pediatric pathologist and a neuropathologist who I consulted at West Virginia University, contained detailed information regarding microscopic findings on autopsy. Also, there was a consultation on the kidney findings with a pathologist at Emory University in Atlanta.

8. Obviously, these microscopic studies were conducted by using slides of Tegan's tissues and other material.

9. The autopsy reports contain detailed summaries of the microscopic findings.

10. The slides have been in my possession through the years, and were in my possession during my meetings with Mr. Detch.

11. Neither Mr. Detch nor any law enforcement agent representing the state of West Virginia ever requested these slides from me, and I never provided them to anyone.

12. Everything relevant that is revealed by the slides is contained on my autopsy report and the autopsy report prepared by the pediatric pathologist at WVU.

As has previously been indicated, this Court, in *State v. Helmick*, stated that there were five elements relevant to whether newly-discovered evidence should form the basis of granting a new trial. One is that the person seeking the new trial must be diligent in ascertaining and securing the evidence, and the evidence must be such that due diligence would not have secured it before the verdict. Another element is that the evidence must be new and material, and not merely cumulative. Additionally, the evidence must be such as ought to produce an opposite result at a second trial.

In assessing the appellant's motion for a new trial in the present case, the circuit court concluded that the spectrographic results were available prior to trial and that the appellant had not requested discovery and had not exercised due diligence in attempting to procure them. The court stated:

Although the defendant's counsel now claims due diligence, the record does reflect that no records were subpoenaed, no motions for discovery were filed, and there was no request of Dr. Hooper to provide the same although there were several conferences and discussions concerning the same with her.

This Court, after reviewing the relevant portions of the record, believes that the evidence supports the trial court's conclusion that Dr. Hooper's records, as well as the evidence in the hands of the State, were potentially made available to the appellant prior to trial, and that the appellant, to avoid reciprocal discovery by the State, made a tactical decision not to seek formal discovery to avoid reciprocal discovery.

The spectrographic results in issue were in existence prior to trial, and were discoverable through the exercise of due diligence. These circumstances indicate that the trial court did not abuse its discretion in denying the motion for a new trial on the spectrographic results because the appellant had failed to use due diligence in seeking them prior to the original trial.

Additionally, the Court notes that the appellant suggests that the availability of the spectrographic records would have resulted in a different result at trial. In its brief, the State says: "The original spectrographs found in the Medical Examiner's Office simply confirm the figures contained within the toxicology report which the Appellant had at trial. In other words, the findings reflected in the spectrographs are identical to the original toxicology report and prove nothing new."

Although this Court's ability to interpret spectrographic graphs, figures, and charts is somewhat limited, an effort has been made to locate the toxicology report and the spectrographic results in issue. In this Court's view, the figures and numbers on the spectrograph records do appear to confirm key values set forth in the toxicology report. For instance, the toxicology reports set forth a caffeine concentration in the liver of "9.04." A spectrograph sheet labeled "Liver" has a calculation which concludes "9.04." The toxicology report sets forth a caffeine concentration in the kidney of "11.06." There is a spectrographic sheet labeled "Kidney" which concludes: "11.06." The same correspondence exists with brain and bile values.

At best, this Court believes that the spectrographic results would constitute cumulative evidence which would not bring about a different result upon the second trial.

The values set forth in the toxicology report seem to correspond to the so-called newly-discovered spectrographic results. Clearly, the fact that there was some discrepancy with the caffeine levels in blood and tissue as reported in the toxicology report was brought to the attention of the jury during trial. Dr. Hooper plainly stated that she believed there was an error in the toxicology report but she remained steadfast in her opinion that the overall evidence showed that caffeine poisoning caused Tegan's death. At the trial, the appellant adduced the testimony of Dr. James R. Shipe which contradicted the conclusions of Dr. Hooper. At trial, the jury plainly had before it the discrepancies in the toxicology report, as well as plainly contradictory medical opinion as to whether caffeine caused Tegan's death. The jury resolved the issue against the appellant.

Overall, this Court believes that the record supports the circuit court's conclusion that the appellant did not exercise due diligence in seeking the spectrographic results prior to trial. Also, the spectrographic results were cumulative evidence of points developed during trial. The spectrographic results would have shown that the caffeine level was lower in Tegan's tissue than in her bodily fluids, but that point was presented to the jury in the toxicology report. While the results might have added to the information providing the basis of the toxicology report, they would not have conclusively contradicted the overall evidence that Tegan died of caffeine poisoning, including the evidence that her digestive tract was filled with caffeine pellets.

In addition to claiming that the State improperly withheld the spectrographic results, the appellant claims that the State improperly withheld tissue slides. The

appellant contends that the tissue slides confirm that Tegan suffered from Reye's Syndrome or a related condition and suggests that she died from the syndrome or condition, rather than caffeine poisoning.

As has been previously stated, to counter the evidence of the State that Tegan died of caffeine poisoning, the appellant took the position during trial that Tegan actually died of Reyes Syndrome or a genetic mimic of it. The appellant's principal witness on this was Dr. Jason Amar of Lewisburg, West Virginia. The testimony of Dr. Amar at trial proceeded as follows:

Q. Have you been asked to review the records, medical records, of both Seth Davis and Tegan Davis?

A. Yes, I have.

Q. Have you ___ In regards to Tegan Davis, have you formed an opinion as to her cause of death?

A. Yes, I have.

Q. And what is your opinion?

A. Tegan Davis died of natural causes that's a result of Reye's Syndrome.

In addition to detailing to the jury why the progress of Tegan's illness indicated Reye's Syndrome or a genetic mimic of it, Dr. Amar testified that the cell studies showed that Tegan suffered from the syndrome or its mimic. For instance, he discussed the pathology report:

Q. What other observations in the pathology report are significant for Reyes?

A. In certain areas of the brain cells, he found the central white matter displayed, what is called cytoplasmic swelling.

Q. And what is cytoplasmic swelling?

A. The cytoplasm is the _ basically the liquid that is inside a cell, okay? What all the items of the cell live in is a cytoplasm. Basically what this means is the cell was swollen, the brain was swollen.

Q. Is that consistent with Reye's Syndrome?

A. Yes, it's classic.

He also discussed Tegan's liver tissue:

Q. And are there particular findings there in the liver biopsy that are consistent with Reye's Syndrome?

A. Yes, there are. The ___ What we just mentioned in the liver cells contain several tiny, clear, what is called ORO positive ___ okay, sudanophilic vacuoles, which are just holes, that do not displace the nuclei, which is the center of the cell. Okay? What this actually is measuring is fat in the cells.

Q. And what is the significance of the fat in the cells?

A. The fat in the cells, this is just classic for Reye's Syndrome. You get either single to many little fat droplets throughout the cytoplasm of the liver without changing the architecture of the liver, and without any significant inflamation.

In the present appeal, the appellant claims that the slides which she did not have prior to trial show that

Tegan had cerebral edema and fatty liver tissue changes. She has an expert, Dr. Edward R. Friedlander, Chief of Pathology at the University of Health Services in Kansas City, who would testify as follows:

A. "[T]here's cerebral edema visible on the slides of the brain. I didn't even realize that Dr. Hooper had not reported the cerebral edema which I saw on the glass under the slide."

Q. "Could you explain that?"

A. "Yeah, They're little bubbles, what we call spongy change. These were visible in the sections of the brain. When I saw them, I just said, well this is cerebral edema of Reye's Syndrome.

And:

I saw microvesicular fatty change in the liver. . . .

Q. "Could you explain the significance of that particular finding?"

A. "In a child, especially in combination with cerebral edema and a clinical picture, is very strongly suggestive of Reye's Syndrome or one of the genetic mimics of Reye's Syndrome.

It appears that the tissue slides in issue were in the possession of Dr. Hooper or the State Medical Examiner's Office at the time of trial. While the tissue slides might have shown that Tegan suffered from brain swelling or edema and fatty deposits in the liver, these points were plainly and extensively developed by the appellant's expert witnesses at trial.

The slides, at best, in this Court's view, were merely cumulative evidence of points developed and considered by the jury at trial. The Court cannot see how the evidence was such "as ought to produce an opposite result on a second trial on the merits."

Again, with regard to the tissue slides, the Court believes that the appellant failed to establish the elements for a new trial on the basis of newly discovered evidence or that the trial court abused its discretion in denying the appellant's motion for a new trial on that basis.

A similar claim by the appellant is that she should have been granted a new trial on the basis of new genetic testing performed upon her son Seth. The new testing, reportedly genetic testing not available at the time of trial, showed that Seth suffered from HGH deficiency, a genetic deficiency, and the appellant argues that such a deficiency could have accounted for the excess insulin which caused his injury.

As has previously been stated, the State introduced evidence indicating that Seth suffered from an extraordinary level of insulin at the time he was taken to a hospital. The evidence also showed that he insulin had an exogenous origin, that is that it came from outside his body.

To counter the State's evidence, the appellant introduced the testimony of an expert who suggested that HGH deficiency might have caused increased insulin production. Plainly, at trial, the jury was presented with the genetic deficiency theory of the causation of Seth's condition and evidence suggesting that he did have the condition. Specifically, an expert for the appellant, Dr. Dale M. Willis, a pediatric endocrinologist, testified at trial as follows:

Q. Doctor, do you know Seth Davis' current length, in terms of height?

A. Yes, I am told he is ___ I think it's 43 inches, or four foot three. It's short.

Q. For 16 years of age, he is short?

A. Yes.

Q. Doctor, do you have an opinion as to whether Seth Davis has human growth hormone deficiency?

A. I would say that short stature is consistent with human growth hormone deficiency.

Q. Doctor, does human growth hormone deficiency explain the symptoms of Seth Davis reported on the charts prior to September 30th, 1981?

A. Yes, it does.

Q. Does human growth hormone deficiency explain the symptoms of Seth Davis following September 30th, 1981?

A. Yes, it does.

Q. Doctor, does human growth hormone deficiency explain the changes of hypoglycemia as is reported on September 30, beginning at the Greenbrier Valley Hospital, to the time he was admitted at Pittsburgh Children's Hospital?> [sic]

A. Yes, it does.

Q. Do you have an opinion as to whether anyone injected insulin into Seth Davis on September 30th, 1981?

A. I believe no insulin was injected. That there is a likely cause of explaining both his glucoses, his growth hormone and his insulin level, without exogenous insulin being injected.

Although it may be argued that the genetic test allegedly proving that Seth had the condition was not available at trial, in this Court's view, the results of the test were merely cumulative of what was presented at trial. Furthermore, the test does not conclusively prove or establish that the insulin in Seth's body was attributable to the condition or rebut the evidence that the insulin in Seth's body was of exogenous origin. Overall, the evidence was not such "as ought to produce a second trial on the merits," and consequently, it cannot be said that the circuit court abused its discretion in denying a new trial on the new genetic test results.

Finally, the appellant asserts that post-trial depositions show that witnesses for the State gave false information to the jury on the level of caffeine in the appellant's daughter's body. The evidence about which the appellant complains was developed during the testimony of Dr. Scharman and Dr. Sopher for the State. Both doctors testified as to the levels of caffeine in the appellant's daughter based upon the toxicology report. They formed opinions based on that report. In support of her motion for a new trial, the appellant introduced opinions of Drs. Evans and Hupka which suggested that the appellant's daughter did not die of caffeine poisoning, and that the opinions of Drs. Scharman and Sopher were erroneous. It appears that the appellant is equating the presentation of these "erroneous opinions" with the presentation of false evidence. The essential portions of the opinions of Drs. Evans and Hupka presented after trial were essentially

the same as the opinion of Dr. Shipe, a witness for the appellant at trial.

In essence, the appellant appears to be saying that experts who have reviewed the evidence after trial have concluded that the opinions of the State's experts were inaccurate, and, thus, the State's experts gave false testimony at trial.

In this Court's view, professional opinions given by competent experts, even if contradicted by opinions of other competent experts, cannot be said to be inherently false. Opinion is opinion, and the Court believes that only if it is shown that an expert's testimonial opinion is diametrically opposite to the opinion which he actually and truthfully holds at the time can the expert's opinion be said to be false. That has not been shown in this case, and, consequently, the Court does not believe that the trial court abused its discretion in refusing to grant a new trial on the alleged false testimony.

For the reasons stated, the judgment of the Circuit Court of Greenbrier County is affirmed. (See footnote 2)

Affirmed.

Footnote: 1

It appears that the appellant specifically elected not to engage in formal discovery to avoid the requirement that she be subjected to reciprocal discovery under the reciprocal discovery provisions of Rule 16 of the West Virginia Rules of Criminal Procedure.

Footnote: 2

At the end of his brief, defendant's counsel seemingly concedes that his "newly-discovered evidence" is cumulative

of what was presented at trial, but he suggests that it would have had more persuasive impact. He says: "What the defense lacked was the persuasive power that the new genetic tests, pictures from the tissue slides and the spectrograph now provide." Although this Court believes, and its opinions show, that a litigant should have a fair day in Court, it has not held that a losing litigant should have endless opportunities to relitigate a case. The Court believes that this is the reason for denying a litigant a new trial on new, but cumulative, evidence. The Court also believes that all legal proceedings should be brought to an end.

STATE OF WEST VIRGINIA

At a Regular Term of the Supreme Court of Appeals continued and held at Charleston, Kanawha County, on the 16th day of February 2005, the following order was made and entered:

State of West Virginia, Plaintiff
Below, Respondent

vs.) No. 31679

Marybeth Davis, Defendant
Below, Petitioner

The Court, having maturely considered the record and the oral argument and the briefs of counsel thereon, is of the opinion for reasons stated in writing and filed with the record that there is no error in the ruling of the Circuit Court of Greenbrier County, rendered on the 10th day of April, 2003. It is therefore considered and ordered by the Court that said ruling be, and it hereby is, affirmed; all of which is ordered to be certified to the Circuit Court of Greenbrier County.

The syllabus of points adjudicated, prefixed to the written opinion aforesaid prepared Per Curiam, was concurred in by Chief Justice Maynard and Justices Davis, McGraw and Albright. Justices Starcher dissents and reserves the right to file a dissenting opinion.

A True Copy

Attest: Rory L. Perry H.
Clerk, Supreme Court of Appeals

State of West Virginia

No. 31679 – *State of West Virginia v. Marybeth Davis*

(Filed December 23, 2004)

Starcher, J., dissenting:

I believe that the majority opinion has used too strict a standard for reviewing the proffered new evidence in the instant case.

The majority opinion (at footnote two) concludes that the new evidence that the appellant seeks to use in a new trial is at best "cumulative," and therefore cannot serve as the basis for a new trial award.

In my judgment, in a close case based entirely on circumstantial evidence, the fact that new evidence is "cumulative" is not itself fatal to a claim seeking a new trial. Sometimes it is precisely the "accumulation" of evidence that can tilt the scales of justice to the point of establishing reasonable doubt.

I would hold, therefore, that when a court concludes that new evidence, even if it is cumulative, might well tip the balance in favor of a criminal defendant by establishing reasonable doubt, and the evidence otherwise meets the standard for a new trial award, the court should order a new trial.

I would reverse and remand for consideration under this standard.

IN THE CIRCUIT COURT OF
GREENBRIER COUNTY, WEST VIRGINIA

STATE OF WEST VIRGINIA

VS.

MARY BETH DAVIS

CRIMINAL ACTION
NO. 96-F-102

AFFIDAVIT

I, Michael A. Evans, state as follows:

A. Professional Experience & Education

I am a toxicologist employed by AIT Laboratories in Indianapolis, Indiana. I have been employed in this position since March 1990. I received my Bachelor's of Science Degree with majors in Biology and Chemistry from St. Joseph College, Rensselaer, Indiana in 1967. I received my Doctorate Degree in Toxicology from Indiana University in 1974. I was certified as a Diplomat by the American Board of Toxicology in 1981 and I have been recertified by the same Board in 1986 and 1991. I have served as a toxicologist on legal matters for over 15 years. I was a member of the faculty at the University of Illinois College of Medicine from 1976 until 1987. I served as tenured Professor of Toxicology, Director of the Graduate Program In Toxicology, and Director of the State Department of Toxicology at Indiana University School of Medicine from 1987 until 1989. I have over 100 scientific publications and have served as a consultant to the following international, Federal, and State agencies: World Health Organization, The World Bank, US Food and Drug Administration, US Environmental Protection Agency, US National Institute of Health, US Department

of Transportation, US Drug Enforcement Agency (DEA), Indiana Controlled Substances Licensing Board and the Indiana Governor's Task Force to Reduce Drunk Driving. My work in legal settings has involved the preparations of affidavits, written reports, and testimonies as an expert toxicologist in criminal and civil court cases, employee arbitration's hearings, workman's compensation hearings, and post-conviction relief hearings.

Since 1980 I have worked on over 200 cases on which I have conducted extensive toxicological reports and as assisted prosecutors and attorneys in preparing for court cases and hearings. These cases and hearings have been in federal court, military proceedings as well as State Courts. I have served as an expert toxicologist in Federal Courts and in over 30 State Courts including Indiana, Illinois, Kentucky, Michigan, Pennsylvania, South Dakota, Virginia, Vermont, California, Colorado, Texas, Arkansas, Ohio, Montana, Mississippi and Florida.

In my over 20 years in academic medicine I have conducted extensive research and provided extensive education in the science of Pharmacology & Toxicology at the following: Vanderbilt University, University of Illinois Health Science Center, Illinois Institute of Technology, US Occupational Safety and Health Agency National Training Center, Sichuan Institute of Traditional Chinese Medicine (People's Republic of China) and Indiana University. In addition, I have provided lectures and courses in toxicology as an invited speaker in the following countries India, Italy, Israel, China, South America (Peru) and Scotland.

The following information is offered in particular interest to this report:

1. Developed, directed and taught a Pediatric Pharmacology Program for the University of Illinois School of Medicine. This Program was used as part of the Core Educational Program for Medical Students at the University of Illinois.

2. Chaired an International Symposium on Pediatric Pharmacology at the 1985 International Congress on Pharmacology, Invited speakers to the Program included key scientist in Pediatric Pharmacology & Toxicology at the US National Iinstitute of Health, the US Food & Drug Administration, and the US National Institute of Child Health & Development.

3. Invited speaker at several US Programs in Pediatric & Neonatology Board Certification Programs on the topics of Drug Disposition & Drug Toxicity.

4. Conducted & published original research in Pediatric Pharmacology & Toxicology

5. Served as a Principal Scientist in the development & clinical application of Indomethacin for treatment of cardiac defects in newborn infants. This research led to the elimination of surgical intervention for these cardiac defects.

6. Developed, directed and taught the Graduate Program in Toxicology at the University of Illinois Health Science Center (Chicago).

7. Developed, directed and taught the Graduate Program in Toxicology at the Illinois Institute of Technology (Chicago).

8. Directed and taught the Graduate Program in Toxicology for Indiana University.

9. Have lectured to Medical Students, Graduate Students and Physicians on the topics of Pediatric

Pharmacology & Toxicology at the following educational institutions:

- Vanderbilt University School of Medicine
- University of Illinois School of Medicine – Chicago
- University of Illinois School of Medicine – Rockford
- University of California – Berkley
- Indiana University School of Medicine
- Cook County Graduate School of Medicine
- University of Illinois School of Public Health

10. Served as Director of the Indiana State Department of Toxicology (Indiana State Toxicologist).

11. Served as Faculty Member and Co-investigator of the first Federally Funded National Research Center on Alcohol and Alcoholism.

12. Serve as a Certified inspector and Team Leader for the College of American Pathologists (CAP) in Inspection of Hospital and Private laboratories.

13. Serve as Certified Inspector for the SAMHSA (Formerly NIDA, US Department of Health and Human Services) Laboratory Certification Program

14. Founded and currently direct, as President & CEO and as Director of Laboratories, AIT Laboratories, Inc. which serves as the laboratory of choice to the largest consortium of Hospitals in Indiana for monitoring of Blood Caffeine in newborns

15. Founded and currently direct, as President & CEO and as Director of Laboratories, AIT Laboratories, Inc. which serves as the laboratory of

choice to the Indiana State Department of Health for Newborn Drug Testing

16. Invited speaker and participant on a Pan-American Symposium on Cocaine sponsored by the US State Department and the National Institute on Drug Abuse

17. Invited Speaker and Lecturer to Graduate Students, Medical Students, Physicians (Post-Graduate Education Programs), Federal Laboratory Inspection Programs, State and Local Law Enforcement Officers and Federal OSHA inspectors (OSHA Training Institute) an the following topics:

    - Toxicology of Drugs (Sources, Disposition and Toxicity)
    - Drug Disposition: Includes the processes by which drugs & chemicals are absorbed, distributed and eliminated from the body. A particular interest in my lectures was Drug Distribution in the Fetal, Newborn & Pediatric Patient
    - Toxicology of Stimulants including Caffeine, Amphetamines & Cocaine
    - Laboratory Procedures: includes Specimen Chain of Custody Procedures, Specimen Transport and Specimen Storage Procedures

18. Assisted in the development and operations of the United States Navy Urine Drug Testing Program.

19. Assisted in the development and implementation of the Federal Guidelines for the Federal Government Urine Drug Testing Program (Which includes the US Department of Transportation and Corporations governed by the US DOT)

20. Served as the Instructor of Quality Assurance/ Quality Control for Inspectors of the Federal Urine Drug Testing Program (Which includes the US Department of Transportation and Corporations governed by the US DOT)
21. Founded and currently direct, as President, AIT Laboratories which serves as the laboratory of choice for Law Enforcement & Criminal Justice agencies in more than 30 states.
22. Awarded multiple Research Grants by the National Institute of Health in the area of Pediatric Pharmacology & Toxicology
23. Organizer & Chairman of an International Symposium on the Pharmacology, Toxicology & the Abuse of Cocaine in our society. The International Symposium focused on the History of Cocaine in our culture, the basic biochemistry of Cocaine addiction and approaches to treatment of Cocaine toxicity & Cocaine addiction
24. Invited Speaker to the US State Department Pan American Conference on Cocaine

Attached to this document and designated as "Exhibit" is my curriculum vita reflecting my education, training, and experience in the science of toxicology.

B. Case Documents

The following items and documents have been provided for my review in the preparation of this report:

1. Letter dated 08/08/01 from R. Kevin Hanson to Dr. James Kraner
2. Toxicology Laboratory Report from Office of the Chief Medical Examiner for Lab Number 82-C-107

3. Litigation Package for Lab Number 82-C-107 to include:
    - Toxicology Request
    - Report of Medical Examiner Investigation
    - Chromatograms from Gas Chromatography Instruments (10 Total)
    - Spectrophotometric Spectroscopy Charts (2 Total)
    - Notes dated 3/22/82, 2:00 PM phone call with Dr. Hooper
    - Greenbriar Valley Hospital Discharge Summary Report for Tegan Davis (3 pages)
    - Laboratory Slips for Microbial Testing (4 Total)
    - SmithKline Clinical Laboratories Report for Tegan Davis
    - List of Drugs on Premise
    - Information on Dietac 12 hr. Capsules
4. Letter from Edward R. Friedlander, M.D. to Paul Detch dated 10/11/99
5. Letter from Jamese E. Heubi, M.D. to Paul Detch dated 10/16/99
6. Letter from Kevin E. Bove, M.D. to Paul Detch dated 12/05/99
7. Affidavit of Dr. Arthur Hupka
8. Deposition of Ronald C. Backer, M.D. dated 01/11/00

C. Specific information from the Case Documents

That based upon my training, experience and knowledge of toxicology as it relates to the effects and disposition of drugs of abuse, the following information was obtained from the Case Documents and considered for my opinions:

1. The concentrations of Caffeine reported in this case and comparison of those concentrations with the known and reported Caffeine concentrations from 14 cases of Caffeine lethality. The Table below provides a comparison (based on Percent) of the Caffeine Concentrations reported in this case with those reported from cases of Caffeine lethality.

Specimen	Tegan Davis Caffeine Conc.	Caffeine Lethality Mean Caffeine Conc.	Percent
Blood	66 ug/ml	183 ug/ml	36%
Brain	5.56 mg/kg	114 mg/kg	4.9%
Liver	9.04 mg/kg	241 mg/kg	3.6%
Kidney	11.06 mg/kg	184 mg/kg	6.0%

2. Deposition of Ronald C. Backer, M.D. dated 01/11/00 in which he states that the results of the Toxicology Report (as noted above for Caffeine) are correct.

D. Caffeine: Interpretation of Information

Caffeine, a central nervous system stimulant, is an odorless white crystalline powder or granule, with a bitter taste. It is sparingly soluble in water and ethanol at room temperature. The chemical name of caffeine is 3,7-dihydro-1,3,7-trimethyl-1 H-purine-2,6-dione. In the presence of citric acid it forms caffeine citrate salt in solution.

Mechanism of Action

Caffeine is structurally related to other methylxanthines, theophylline and theobromine. It is a bronchial smooth muscle relaxant, a CNS stimulant, a cardiac muscle stimulant and a diuretic. Although the mechanism of action of caffeine in apnea of prematurity is not known, several mechanisms have been hypothesized. These include: (1) stimulation of the respiratory center, (2) increased minute ventilation, (3) decreased threshold to hypercapnia, (4) increased response to hypercapnia, (5) increased skeletal muscle tone, (6) decreased diaphragmatic fatigue, (7) increased metabolic rate, and (8) increased oxygen consumption. Most of these effects have been attributed to antagonism of adenosine receptors, both A 1 and A 2 subtypes, by caffeine, which has been demonstrated in receptor binding assays and observed at concentrations approximating those achieved therapeutically.

Pharmacokinetics

Absorption

After oral administration of 10 mg caffeine base/kg to preterm neonates, the peak plasma level (C max) for caffeine ranged from 6-10 mg/L and the mean time to reach peak concentration (T max) ranged from 30 minutes to 2 hours. The T max was not affected by formula feeding. The absolute bioavailability; however, was not fully examined in preterm neonates.

Distribution

Caffeine is rapidly distributed into the brain. Caffeine levels in the cerebrospinal fluid of preterm neonates approximate their plasma levels. The mean volume of distribution of caffeine in infants (0.8-0.9 L/kg) is slightly higher than that in adults (0.6 L/kg). Plasma protein binding data are not available for neonates or

infants. In adults, the mean plasma protein binding in vitro is reported to be approximately 36%.

Metabolism

Hepatic cytochrome P450 1A2 (CYP1A2) is involved in caffeine biotransformation. Caffeine metabolism in preterm neonates is limited due to their immature hepatic enzyme systems. Interconversion between caffeine and theophylline has been reported in preterm neonates; caffeine levels are approximately 25% of theophylline levels after theophylline administration and approximately 3-8% of caffeine administered would be expected to convert to theophylline.

OVERDOSAGE

Following overdose, serum caffeine levels have ranged from approximately 50 mg/L to 350 mg/L. Signs and symptoms reported in the literature after caffeine overdose in preterm infants include fever, tachypnea, jitteriness, fine tremor of the extremities, hypertonia, opisthotonos, tonic-clonic movements, nonpurposeful jaw and lip movements, vomiting, hyperglycemia, elevated blood urea nitrogen, and elevated total leukocyte concentration. Seizures have also been reported in cases of overdose. One case of caffeine overdose complicated by development of intraventricular hemorrhage and long-term neurological sequelae has been reported. No deaths associated with caffeine overdose have been reported in preterm infants. In placebo-controlled clinical trials for newborns receiving Caffeine for prevention of apnea, caffeine blood levels ranged from 8 to 40 ug/ml.

F. Opinions

It is my opinion based upon reasonable scientific probability and based upon my training and experience and based upon the facts listed in the preceding paragraphs that:

1. The Chromatograms are consistent with and support the Toxicology Laboratory Report from Office of the Chief Medical Examiner for Lab Number 82-C-107
2. The information as contained in the Litigation package is inconsistent with and contrary to Caffeine as a cause of toxicity or death in this case.
3. The Blood and Tissue concentrations in this case indicate that:
   - The infant died before the Caffeine was distributed to the tissue (Brain, Liver, Kidney, etc.) from the Blood. Based on published Clinical studies of Caffeine, significant distribution for Caffeine from the Blood to the Tissues occurs within 10 minutes following intravenous administration and 30 minutes following oral administration.
   - The amount of Caffeine in the gastric contents (192 ug) is less than 1% of the Caffeine in a single cup of coffee. The average cup of coffee contains approximately 100 mg (or 100,000 ug) of Caffeine. As noted previously it requires 0.5 to 2.0 hours for total absorption (and peak Blood Concentrations) of Caffeine by oral administration.
   - The amount of Caffeine in the Liver (9.04 mg/kg) is less than 5% of the average Liver Caffeine Concentration in known cases of Fatal Caffeine Poisonings. The average Liver

concentration of Caffeine in known & reported Caffeine fatalities is 241 mg/kg.

- The amount of Caffeine in the Kidney (11.06 mg/kg) is less than 6% of the average Kidney Caffeine Concentration in known cases of Fatal Caffeine Poisonings. The average Kidney concentration of Caffeine in known & reported Caffeine fatalities is 184 mg/kg.
- The amount of Caffeine in the Brain (5.56 mg/kg) is less than 5% of the average Brain Caffeine Concentration in known cases of Fatal Caffeine Poisonings. The average Brain concentration of Caffeine in known & reported Caffeine fatalities is 114 mg/kg.
- The amount of Caffeine in the Blood (6.6 mg% or 66 ug/ml) is approximately 33% of the average Blood Caffeine Concentration in known cases of Fatal Caffeine Poisonings. The average Blood concentration of Caffeine in known & reported Caffeine fatalities is 183 ug/ml. However the reported Caffeine value of 183 ug/ml in Caffeine fatalities is for cases in which Caffeine has undergone distribution in the tissue. As documented by the Tissue Caffeine concentrations in this case, at the time of death Caffeine was not distributed to the tissue.

4. At the time of death there was minimal distribution of Caffeine throughout the body. Based on this minimal distribution of Caffeine at the time of death it is my opinion that death occurred within 5 to 10 minutes after Caffeine administration.

5. At the time of death there was minimal caffeine (less than 1% of the Caffeine in a cup of coffee) in the gastric contents and minimal distribution of

Caffeine to the tissues. Based on the known & reported oral & intravenous distribution times for Caffeine in humans, it is my opinion that the Caffeine in this case was administered by intravenous administration within 5 or 10 minutes prior to death.

6. The effects of Caffeine including toxicity and death are due to its pharmacological actions in the Central Nervous System (Brain). The effects of Caffeine in the Brain are concentration related (the higher concentration at the site of action, the greater the effect). In this case the Caffeine concentration in the Brain (5.56 mg/kg) was less than 5% of the average Brain Caffeine Concentration in known cases of Fatal Caffeine Poisonings. It is my opinion based on the above that the concentration of Caffeine in the Brain in this case was insufficient to produce either Caffeine toxicity or Caffeine death.

7. Plasma water (the fluid in the Blood) represents approximately 4.5% of the total weight of the body. Based on a body weight of 29 pounds the total Plasma water in this case is 1.3 Liters or 1300 ml (4.5% X 29 lbs.). The Blood Caffeine concentration in this case was 66 ug/ml. The total amount of Caffeine in the Blood in this case is therefore 66 ug/ml X 1300 ml or 85,800 ug or 85.8 mg. The average cup of coffee contains approximately 100 mg (or 100,000 ug) of Caffeine. The total amount of Caffeine in the Blood in this case is less than the amount of Caffeine in a single cup of coffee.

8. Since Caffeine in this case was only minimally (~ 5%) distributed to the tissues at the time of death it is my opinion that the total amount of Caffeine in the body (including the Blood with a

concentration of 66 ug/ml) is less than 200 mg or the amount of Caffeine in 2 cups of coffee.

9. The concentration of Caffeine in the Blood is only of importance as a relative measure of Caffeine at the site of action (i.e., the Brain). Caffeine does not have any relevant Pharmacological & Toxicological action in the Blood other than distribution to the organs. Since the Caffeine in this case had not been distributed to the Brain (The Brain Caffeine was less than 5% of the average Brain Caffeine Concentration in known cases of Fatal Caffeine Poisonings) the Blood Caffeine concentration of 66 ug/ml is of no Pharmacological & Toxicological significance.

10. I have reviewed the report of Dr. Art Hupka and find that his conclusions concerning Caffeine in this case are consistent with both the known & reported Pharmacology & Toxicology of Caffeine and the Laboratory Toxicology findings of this case. Specifically:

    - The amount of Caffeine in Tegan Davis at the time of death was equivalent to 1 to 1 & ½ cups of coffee (100 to 150 mg). This is consistent with my Opinion # 8
    - The amount of Caffeine in the Blood & Tissues (including Gastric Contents) of Tegan Davis is consistent with and supports the following opinions:
        - Caffeine was given by intravenous administration (Reference Opinions # 5)
        - Caffeine was administered within 15 minutes of death Reference Opinions # 4)
    - Caffeine is currently used as a Respiratory Stimulant in premature & newborn infants. In the 1970's Caffeine was also used as a

Treatment for overdose of CNS Depressant drugs. I note in the Medical Records of Greenbrier Valley Hospital (page 3) that "parenteral administration of Diazepam" was used to control symptoms. Diazepam (trade name is Valium) is a CNS Depressant drug.

FURTHER THE AFFIANT SAYETH NOT.

I AFFIRM UNDER THE PENALTIES FOR PERJURY THAT THE FOREGOING REPRESENTATIONS ARE TRUE.

DATED 5th DAY OF September, 2001.

/s/ [Illegible]
MICHAEL A. EVANS, Ph.D.

Subscribed and sworn before me /s/ Laura A. Portish.

a Notary Public, this 5th day of September, 2001.

SEAL:

/s/ Laura A. Portish
Laura A. Portish

My term expires: June 07, 2009

My County of Residence: Hendricks

APPENDIX E

Commentary

IN THIS CASE, A CAFFEINE POISONING IS A SCIENTIFIC IMPOSSIBILITY:

At the time of Tegan's death, extensive toxicology tests were performed which found harmless levels of caffeine, less than 5% of a lethal amount, less than found in two cups of coffee. The recognized average lethal level of caffeine in the liver is **241** and in the kidney at **184**. Appendix D, App. p. 30. Evans Affidavit. However, the West Virginia Supreme Court has affirmed a conviction for a caffeine poisoning where the caffeine levels are twenty times lower than the recognized lethal levels. The State Court in its opinion states:

> "Although this Court's ability to interpret spectrographic graphs, figures, and charts is somewhat limited, an effort has been made to locate the toxicology report and the spectrographic results in issue. In this Courts' view, the figures and numbers on the spectrograph records do appear to confirm key values set in the toxicology report. For instance, the toxicology reports set forth a caffeine concentration in the liver of "**9.04.**" A spectrograph sheet labeled "Liver" has a calculation which concludes "9.04." The toxicology report sets forth a caffeine concentration in the kidney of "**11.06.**" There is a spectrographic sheet labeled "Kidney" which concludes: "11.06." The same correspondence exists with brain and bile values."

According to toxicologists, the amount and the distribution of the caffeine provide conclusive proof of innocence. On a post trial, joint submission by both the State

and the Defendant, Dr. Michael Evans, toxicologist of A.I.T. Laboratories of Indianapolis was chosen as a neutral expert witness. He reviewed the withheld spectrographs on Tegan and compared the amounts now published by the Court with published levels of lethality and by affidavit found the following:

DR. EVAN'S CHART

Specimen	Tegan Davis Caffeine Conc.	Caffeine Lethality Mean Caffeine Conc.	Percent of lethal level
Blood	66 ug/ml	183 ug/ml	36%
Brain	5.56 mg/kg	114 mg/kg	4.9%
Liver	9.04 mg/kg	241 mg/kg	3.6%
Kidney	11.06 mg/kg	184 mg/kg	6.0%

The Evans Affidavit is attached as Appendix D (Chart is on App. 30).

In the far right column, Dr. Evans places the values published by the West Virginia Court in Tegan's liver and kidney at only 3.6% and 6.0% of a lethal level. Less than 5% of a lethal level is found in the vital organ of the brain. Dr. Evans computes the total amount of caffeine in Tegan's entire body at less than found in "two cups of coffee." (Par. 8, App. 35, 36) Dr. Art Hupka, toxicologist and pharmacologist for the defense, also reviewed these same spectrographs and placed the total caffeine found at around "one and a half cups of coffee." Dr. James Shipe, the defense trial expert from the University of Virginia, testified that the levels were only at 5% of lethality. Three toxicologists, working independently of each other, one on a joint submission by the State and defendant, have compared this data with known levels of caffeine lethality and have

concluded that a caffeine poisoning in this case is not possible. The West Virginia Supreme Court is affirming a conviction of a murder by caffeine poisoning on less caffeine than had the child consumed a coca cola or two cups of coffee.

An earlier, higher amount is not possible due to the distribution. The universal laws of science of drug distribution bar the caffeine from being higher in this time frame. The West Virginia Court notes: "The spectrographic results would have shown that the caffeine level was lower in Tegan's tissue than in her body fluids." (Blood). In fact, the official toxicology report shows the caffeine in the tissues was ten times less than in the blood.

Caffeine moves through the body by diluting from a higher concentration to a lower concentration. When it is more highly concentrated in the blood than in the tissue, the caffeine has to be going from the blood to the tissue. In this case, with the caffeine concentration ten times lower in the tissue, most of the caffeine in the blood never reached the tissue. Since it is going into the tissue, the amount of caffeine in the tissue is at its highest level. Scientifically it can not have been higher in this time frame. This is a rule of science. This principle is explained by Dr. Art Hupka, toxicologist. (Hupka Deposition P.22).

Q: "Why could it" (the caffeine) "not have been higher?"

A. "Well, if I can explain a few concepts that will be easily understandable, if you will, of chemicals and fluids that they move from higher concentrations, greater amounts, to areas where there's smaller amounts, the opposite doesn't happen. So in Tegan we had a blood level, that is we had the greater amount of the substance there, would

> naturally move from the blood to the tissue, it couldn't be going from the tissues to the blood and have a higher concentration, so basically that high concentration that was in the blood at that point in time couldn't have been higher."

Drs. Hupka and Evans, both agree this unusual distribution of caffeine in Tegan is explained by an unrecorded injection of caffeine by health care personnel at the time of Tegan's death to stimulate breathing, a purpose for which caffeine was used in 1982. (Appendix D Evans Affidavit App. 36, 37.) Only if the caffeine is increased ten times, or 1000% in the tissue can the flow of caffeine be reversed. Only if the flow is reversed, can a higher earlier lethal amount become scientifically possible. The West Virginia Court has now verified the accuracy of the data that makes a caffeine poisoning a scientific impossibility

This case is scientifically very simple. No one has ever died of this little caffeine.

APPENDIX F

Commentary

THE HOOPER THEORY OF A HOMICIDE

On a State required autopsy, Dr. Anne Hooper, found white beads spread throughout Tegan's intestines. At first, Dr. Hooper believed that Tegan had taken aspirin. However, the toxicology tests found no aspirin. What was found was caffeine with an unusual distribution in that it was ten times higher in the blood than in the tissue. The only product found in the Davis home that contained caffeine in pill or capsule form was Dexitrime, a diet pill. So, Dr. Hooper next believed that the mysterious white beads were 'plastic' pill remains of diet pills. After the toxicology report did not find the other ingredient to diet pills, Phenylpropanolanune (PPA), Dr. Hooper next concluded that the white beads must be some form of the remains of 'time released' caffeine, pills. Dr. Hooper made an extensive search for 'timed released' caffeine, but could find no such product, probably because no one has been found who manufactures it. There is no marketable need for a tasteless pill to make one slightly more awake twelve hours later.

As explained in Appendix E, the small amount and distribution of the caffeine make a poisoning impossible. In order to overcome this obstacle of scientific impossibility, Dr. Hooper assumed that the toxicology report was wrong in the tissue tests:

Tr. R. 576): Q.: "The three tissue tests for caffeine. Did that indicate a lethal amount?

A. If the results are correct, no, it was not a lethal amount. I am questioning the correctness of the results."

Dr. Hooper fixed the perceived laboratory error by increasing the caffeine ten times to equal the blood. In a note to Sgt. Spradlin from Dr. Hooper (Discovery 002481), Dr. Hooper writes:

"b. I assumed that the caffeine was ***evenly distributed throughout the body***, and calculated on the basis of the blood caffeine level, 6.6 mg% or 6.6/100gm. (Emphasis added)

To make a poisoning possible, Dr. Hooper had to increase the caffeine levels in the tissue ten times in order to reverse the flow of the caffeine. In her mind, Dr. Hooper changed the findings of the official toxicology report from a harmless two cups of coffee to an imaginary lethal level of fifty to one hundred cups of coffee. She could accomplish this by not reporting the lesser amounts found in the tissue and letting people assume it was evenly distributed throughout Tegan's body.

Then Dr. Hooper ran into another major problem. The total quantity of caffeine pills required to be lethal was too great to be held in a vomiting three year old child's stomach.

> Tr. R. 574. Hooper: "I tried to do some calculations to see if – how many pills, say, it was all half-life destruction, it would take, and I think I came up – she would have to have 100 pills. No way did she eat 100 of those capsules. There's just no way you can go back and say because it was a level of such and such, at such and such time, that she had to have taken so many capsules. There is just no way you can do it, and you shouldn't even try. If you do try, you may get into a ridiculous situation."

If the toxicology report is accurate, it is a scientific impossibility for a caffeine poisoning to have occurred. On the other hand, even if the toxicology report is not accurate, as a practical matter, a caffeine poisoning is not possible either. The child's body would not hold this much caffeine. Caffeine when it reaches certain levels also causes one to vomit. Some additional method would be required to get the caffeine to stay in the system. No such drug has been found. Even today the State refuses to explain the nature and cause of the accusation. The fact no one can explain how this poisoning is possible seems to bother no one but the petitioner

Dr. Hooper, post trial also disclosed other aspects of her theory and that is that valium might have played a part in the death of Tegan. She disclosed on her post trial deposition: (P. 8, Dep. Feb. 13, 2001

"When I talked to Spradlin, he was about it. He was very upset because he had a firm belief that either the Valium killed Tegan or the caffeine killed Tegan or the caffeine killed Tegan, and he couldn't see that they both contributed to it. And therefore, he felt if the story of the Valium came out, maybe Marybeth would get away with it completely because it wasn't the caffeine."

P. 17 Dep. Feb 13, 2001. "This is as she told me, so its hearsay. That he threatened her with all kinds of – I guess arrests, or something like that if she dared talk to anybody about it. That she was to keep mum on the subject. I don't remember what the specific threats were but they weren't very nice."

The valium was important for another reason, it explained why the caffeine would have been injected. The fact that Dr. Hooper thought that valium administered by

the treating physician might have contributed to the death would have lowered the offense from first degree murder to manslaughter.

Post trial, Dr. Hooper added to her list of why the toxicology report was wrong. The amount of caffeine in bile was higher than in the tissue. The problem with this argument is that toxicologists do not use the bile to measure the amount of the drug. Bile concentrates the bile and would show the presence of caffeine at an earlier time, but would not be able to tell in what quantity it was. Dr. Hupka, the toxicologist would not use the bile to disregard the official findings.

IN THE CIRCUIT COURT OF
GREENBRIER COUNTY, WEST VIRGINIA

STATE OF WEST VIRGINIA

VS. CRIMINAL ACTION
NO. 96-F-102

MARY BETH DAVIS

MOTION FOR INDEPENDENT
CHEMICAL ANALYSIS OF TISSUE SAMPLES
OF TEGAN DAVIS

TO THE HONORABLE JUDGE OF SAID COURT:

I.

Your defendant, Mary Beth Davis, is charged in the above styled criminal proceeding in the Circuit Court of Greenbrier County, West Virginia, for alleged activities that took place in 1981 and 1982 in Greenbrier County.

II.

That investigation by counsel for the defendant has lead the defendant to be advised and informed that the State of West Virginia may attempt to introduce evidence in regards to the spread of caffeine into the tissues of Tegan Davis, deceased.

III.

That your defendant, Mary Beth Davis, in order to prepare for trial needs to conduct an independent test on the said tissue to determine whether in fact the caffeine is in fact caffeine or another substance that may given a false positive for caffeine.

PRAYER

WHEREFORE, your defendant Mary Beth Davis requests that her motion be filed; that a hearing be had; that the State of West Virginia make available to her or her counsel any slides, tissues samples, or otherwise of the said Tegan Davis in order that an independent laboratory analysis of the tissues of the said Tegan Davis may be conducted and the results therefrom be made available to the defendant and to the State of West Virginia in conformance with law; that in the event that the said tissue samples are not available due to the passage of time that all reference to them be barred as a denial of the due process rights of your defendant Mary Beth Davis; that the results thereof of any test be barred as a denial of the right of the said Mary Beth Davis to properly confront her accusers and that the said Mary Beth Davis be granted such other, further, and general relief as the honorable court may deem meet.

MARY BETH DAVIS
By Counsel

/s/ Paul S. Detch
PAUL S. DETCH
201 N. Court Street
Lewisburg, WV 24901

CERTIFICATE OF SERVICE

I, Paul S. Detch, do certify that a true and exact copy of the foregoing Motion was forwarded to Prosecuting Attorney, at the Greenbrier County Courthouse, Lewisburg, West Virginia 24901, by United States mail, postage

prepaid at Lewisburg, West Virginia, on this 18 day of April, 1997.

/s/ Paul S. Detch
PAUL S. DETCH

IN THE CIRCUIT COURT OF GREENBRIER COUNTY, WEST VIRGINIA

STATE OF WEST VIRGINIA,

Plaintiff,

vs. Criminal Action No. 96-F-102(J)

MARY BETH DAVIS,

Defendant.

STATE'S RESPONSE TO DEFENDANT'S MOTION IN LIMINE

Comes now the State of West Virginia, by Counsel, W. Mark Burnette, Prosecuting Attorney of Greenbrier County, and in response to Defendant's Motion in Limine, states as follows:

I.

Defendant's Motion in Limine raises several issues wherein she contends that the State should be precluded from presenting testimony concerning those issues. Specifically, those issues are:

1. Any oral history obtained by Dr. Hooper "from a grandmother and further object to any oral testimony of any investigation that exceeds the autopsy report";

2. Dr. Hooper should be precluded from speculating as to the chemical content of Tegan Davis' stomach matter; and

3. The introduction of certain tissue sample findings as to the spread of caffeine in the body of Tegan Davis in that the tissues have been

> destroyed and Defendant is unable to have independent testing performed on the tissue.

Defendant objects to the State's introduction of any hearsay statements made by Dr. Hooper, a forensic pathologist, concerning the autopsy she performed on Tegan Davis. Specifically, Defendant objects to the introduction of any testimony statements Hooper learned from Tegan Davis' grandmother concerning Tegan's medical history. The State is aware of its responsibilities and limitations concerning hearsay testimony. Rule 803(4) of the West Virginia Rules of Evidence provides, in pertinent part:

> Statements for purposes of medical diagnosis or treatment. – Statements made for purposes of medical diagnosis or treatment in describing medical history, or past or present symptoms, pain, or sensations, or the inception or general character of the cause or external source thereof insofar as reasonably pertinent to diagnosis or treatment.

Pursuant to the hearsay exceptions listed in Rule 803, the State responds that any such statements obtained by Dr. Hooper from the grandmother concerning Tegan's medical history are not hearsay statements and are therefore admissible.

Defendant next contends that Dr. Hooper should be precluded from testifying about any investigation she performed that exceeded the autopsy report. Defendant fails to specifically state what "investigation" Dr. Hooper conducted. Therefore, the State responds that it will abide by the West Virginia Rules of Evidence as to any and all testimony it presents.

Defendant contends that Dr. Hooper should be precluded from "speculating as to any chemical content" found within Tegan Davis' stomach and it further contends there is no evidence of any chemical analysis of the content of Tegan Davis' stomach. In response, Dr. Ronald C. Backer, toxicologist for the State of West Virginia, performed a report on April 26, 1982 concerning the content of Tegan Davis' stomach and that report clearly falls within the exceptions listed in West Virginia Rules of Evidence, Rule 803(4) and (8), thus, such testimony is clearly admissible. Furthermore, Dr. Backer will appear at trial to testify about the findings outlined in his report.

Finally, Defendant contends the State should be precluded from presenting testimony concerning testing on Tegan's tissue samples because the samples are no longer available and the Defendant is precluded from conducting independent tests. Clearly, the State has the duty to disclose material exculpatory evidence to the Defendant. However, when the issue is preservation of potentially exculpatory evidence, Defendant must show bad faith on the part of the government to prevail on the violation of due process claim. *Holden v. Legursky* 16 F. 3d 57 (4th Cir.) (1983). See also: *Arizona v. Youngblood* 48 U.S. 51 (1988). In the instant case, Defendant does not argue that the tissue samples were exculpatory, rather, Defendant simply wants the opportunity to have independent tests conducted. In that this case dates back to 1982, the samples are no longer available. In fact, Defendant does not raise the issue of bad faith concerning the destruction of evidence. Therefore, the State should be permitted to present the evidence concerning Tegan Davis' tissue samples. The issue, when there is no bad faith leading to the destruction of evidence, is one of weight of the evidence rather than

admissibility. Certainly, the Defendant may cross-examine the clinician who performed the tests. Moreover, Defendant can argue to the jury that due to the destruction of the evidence, and Defendant's inability to have further tests conducted, little weight, if any, should be given to the toxicologist test results.

WHEREFORE, based on the above, Defendant's Motion in Limine should be denied.

/s/ [Illegible]
W. Mark Burnette
R. Brandon/Johnson
Prosecuting Attorney
for Greenbrier County
P.O. Box 911
Lewisburg, WV 24901
(304) 647-6616

CERTIFICATE OF SERVICE

I, W. Mark Burnette, Greenbrier County Prosecuting Attorney, hereby certify that the "State's Response to Defendant's Motion in Limine" has been served upon Defendant by hand delivering a true copy thereof to counsel for Defendant, at the following address:

Paul S. Detch, Esquire
201 South Court Street
Lewisburg, West Virginia 24901.

Dated: /s/ [Illegible]

/s/ [Illegible]
W. Mark Burnette